

Rocky Flats Environmental Technology Site

Building 776/777

2nd Floor

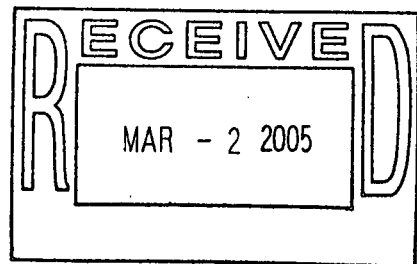
Final Survey

Report

Survey Units:
776030

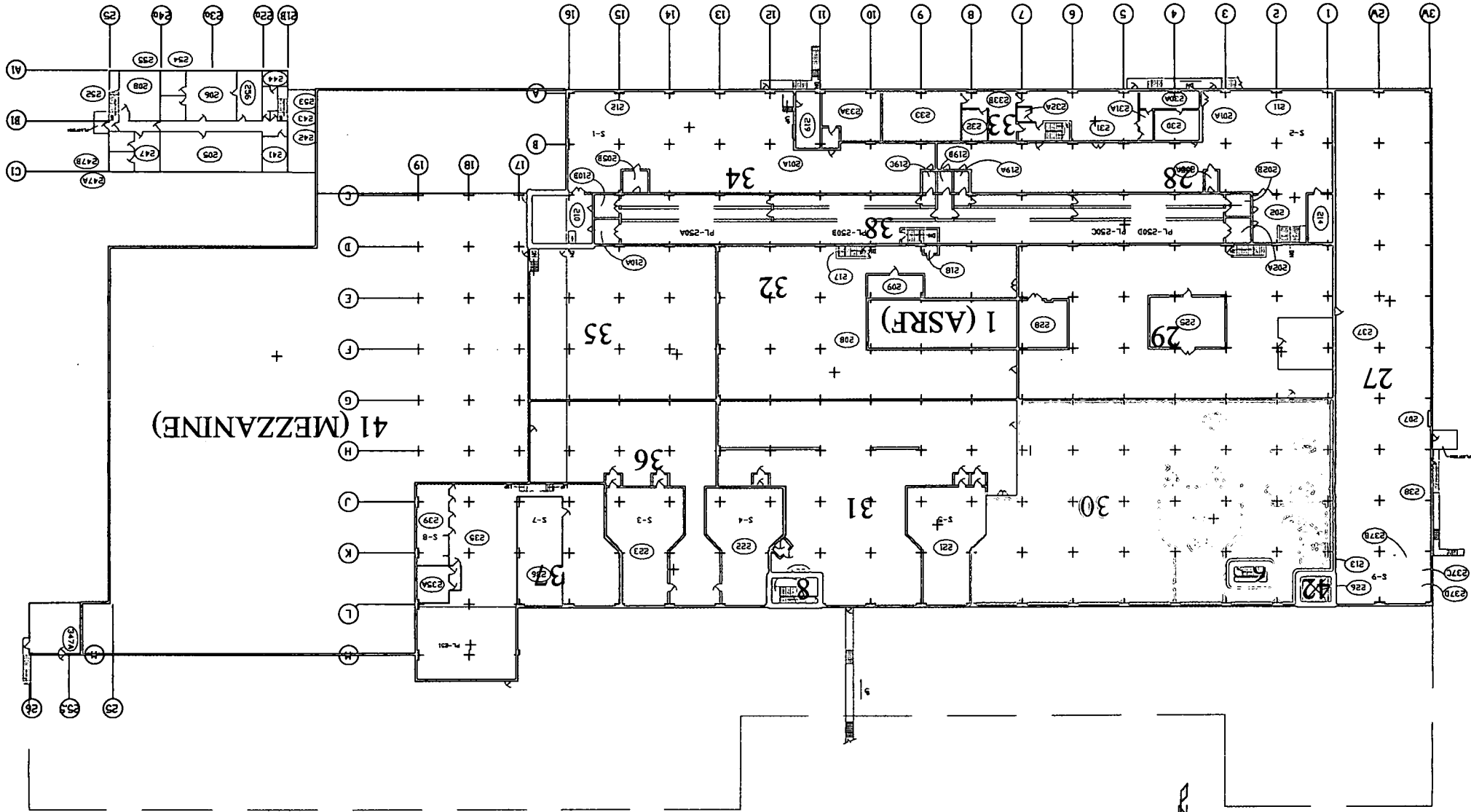
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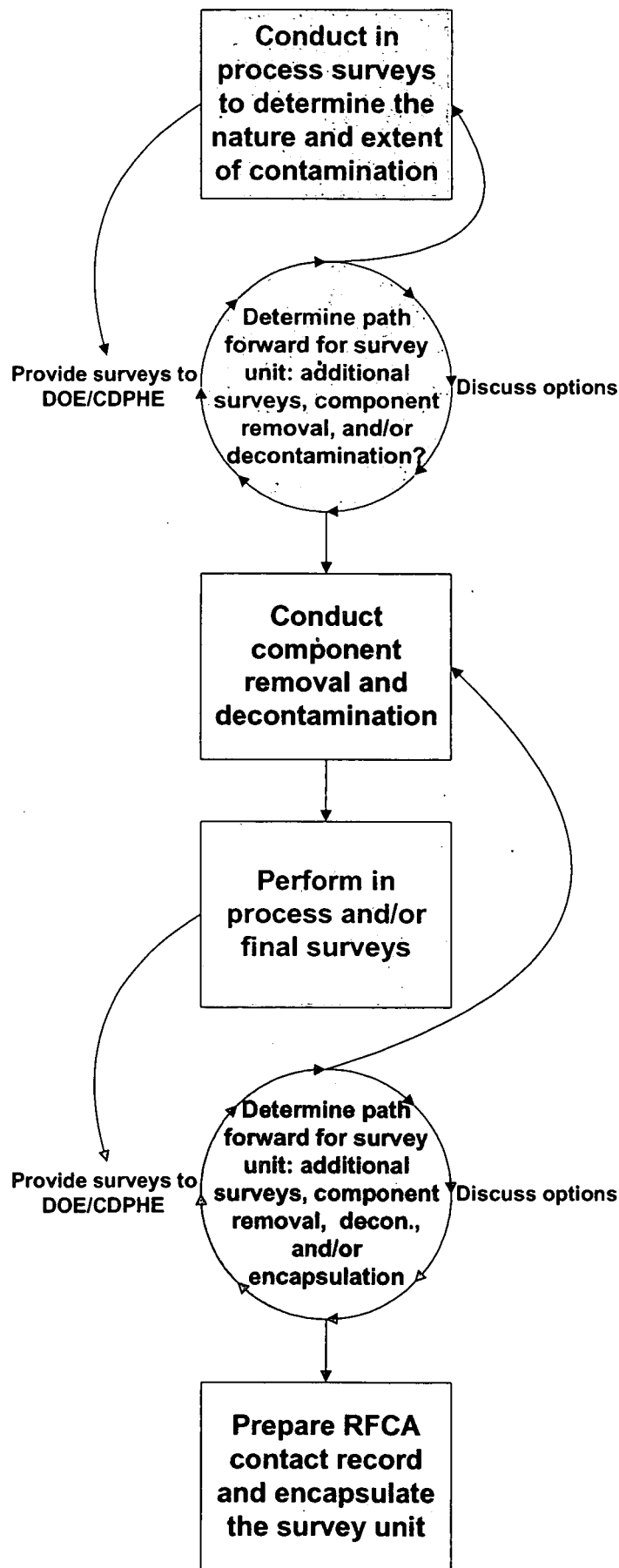
December 2004



ADMIN RECORD

B776/777 INITIAL SURVEY UNITS
2nd FLOOR





Survey Instructions
Building 776 2nd Floor
Survey Unit 776030

Purpose:

This instruction provides guidance for collecting gross gamma and removable contamination data to quantify the amount of residual contamination in Survey Unit 776030 prior to demolition. NaI measurements are performed in accordance with "INS-535-Ludlum2350-1 with Sodium Iodide Detector".

Equipment and materials:

1. A Ludlum 44-17 attached to a Ludlum 2350-1 set to collect five-minute counts that will be displayed on its LCD window.
2. A Bicron G-5 attached to a Ludlum 2350-1 set to collect five-minute counts that will be displayed on its LCD window.
3. One Electra with attached DP-6, calibrated and daily response checked.
4. Two probe holders, one for the G-5 and one for the 44-17 with tin shielding.
5. Calibrated and daily response checked SAC-4.
6. Measuring tape or laser range finder.

Note: The NE Electra with DP-6 probe and the Eberline SAC-4 shall be used in accordance with RSP- 7.01 and 7.02

Procedure:

1. Inspect instrument for obvious damage and ensure battery voltage is equal to or greater than 4.6 volts. If battery voltage is less than 4.6 volts change the batteries.
2. Complete daily performance checks for Sodium Iodide detectors to ensure the instrument is functioning properly by using Americium-241 source TS-912. Record results on Sodium Iodide Data Sheet.
3. For floor and concrete wall background measurements, perform a 300-second background count with a Bicron G-5 for floors or Ludlum 44-17 for walls at background location in room 201-A near column B-13. Record background counts next to "Bkg Floor" or "Bkg Concrete Wall" in background column of attached "Sodium Iodide Data Collection" sheets as needed.
4. For block wall background measurements, perform a 300-second background count with a Ludlum 44-17 at the background location at room 219. Record background counts next to "Bkg Block Wall" in background column of attached Sodium Iodide data collection sheets as needed.
5. For ceiling and metal floor background measurements, perform a 300-second background count with a Ludlum 44-17 or Bicron G-5 at background location in room 201-A near column B-13. Hold the probe waist high, pointed toward ceiling using a sheet metal plate in front of the detector (take background measurement in this configuration). Record background counts next to "Bkg Metal Floor" for the G-5 and " Bkg Metal Ceiling" for the 44-17 on the attached Sodium Iodide data collection sheets as needed.
6. Mark the sample locations on the surfaces to be measured. Take all measurements on contact with the marked surface using tin side shields on the Bicron G-5 and tin side and back shields on the Ludlum 44-17. All Sodium Iodide readings shall have 300 second count times.
7. Collect sodium Iodide, total surface activity and removable surface activity measurements at all locations marked on the attached map.
8. Record the NaI and NE Electra measurements on the attached sheet. Note any items or conditions that may have affected the measurement in the "remarks" section.
9. Count swipes for 60 seconds with a SAC-4, record result on attached sheet for removable contamination.

Survey Instructions
Building 776 2nd Floor
Survey Unit 776030

Table 776030-1: Survey Requirements

Surface	Type of Survey	Probe	Placement	Count Time
Floor	Total Alpha Activity	Bicron G-5	On contact	300 seconds
All Surfaces	Total Alpha Activity	Electra with DP-6	On contact	60 seconds
Block walls	Total Alpha Activity	Bicron G-5 or Ludlum 44-17	On contact	300 seconds
All Surfaces	Removable Alpha	SAC-4	Swipe in placed in tray	60 seconds
Ceiling	Total Alpha Activity	Ludlum 44-17	On Contact	300 seconds
Block Walls	Background measurement	Bicron G-5 or Ludlum 44-17	On contact with wall at room 219	300 seconds
Metal Floors	Background measurement	Bicron G-5 or Ludlum 44-17	Probe waist high, pointed toward ceiling with sheet metal plate on end in room 201-A near column B-13	300 seconds
Floors and cement walls	Background measurement	Bicron G-5 or Ludlum 44-17	On contact with floor in room 201-A near column B-13	300 seconds
Metal ceilings	Background measurement	Ludlum 44-17	Probe waist high, pointed toward ceiling with sheet metal plate on end in room 201 near column B-13	300 seconds

2nd Floor

Follow-up Survey Instructions for Floors

Survey/ Sampling Instructions

Purpose:

To collect gross gamma data to augment data already collected on survey unit 776030 floor. Work to be performed in accordance with " INS-535-Ludlum2350-1 with Sodium Iodide Detector"

Equipment and materials:

- 1) A Ludlum 44-17 Attached to a Ludlum 2350-1 set to collect 1-minute counts that will be displayed on its LCD window.
- 2) A Bicron G-5 Attached to a Ludlum 2350-1 set to collect 1-minute counts that will be displayed on its LCD window.
- 3) HILTI PD 28 Laser range finder or Measuring tape that is at least 10 feet long.
- 4) 2 Probe holders, One for the G-5 and for the 44-17 with tin collimator

Procedure:

- 1) RCT ensure the instrument is functioning by using Americium source TS-912. Obtain one 60 second count at the beginning and end of each workday.
- 2) RCT inspect instrument for obvious damage and perform a battery check on the instrument.
- 3) RCT obtain a 60 second unit specific background measurement 30-cm above the floor near column B-13 on second floor.
- 4) In the highlighted grids on the attached sheet (grid #'s 7, 8, 9, 11, 14, 21, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 46, 47, 49, 50, 51, 60, 62B, 63, 64, 66, 68, 69, 70, 90, 92, 93, 102 and 103) take 60-second readings at 30-cm as near as possible to the original survey location.
- 5) If survey location is above a contaminated crack or seam then note in the remark section. Do not take readings directly over a hole in the floor.
- 6) Document results on Sodium Iodide Data collection Sheets. Write "2nd survey" in the remarks section at the bottom of the data sheet.

2nd Floor

Follow-up Survey Instructions for Ceilings

Survey/ Sampling Instructions

Purpose:

To collect gross gamma data to augment data already collected on survey unit 776030 ceiling. Work to be performed in accordance with " INS-535-Ludlum2350-1 with Sodium Iodide Detector"

Equipment and materials:

- 1) A Ludlum 44-17 Attached to a Ludlum 2350-1 set to collect 1-minute counts that will be displayed on its LCD window.
- 2) A Bicron G-5 Attached to a Ludlum 2350-1 set to collect 1-minute counts that will be displayed on its LCD window.
- 3) HILTI PD 28 Laser range finder or Measuring tape that is at least 10 feet long.
- 4) 2 Probe holders, one for the G-5 and one for the 44-17 with tin collimator

Procedure:

- 1) RCT ensure the instrument is functioning by using Americium source TS-912. Obtain one 60 second count at the beginning and end of each workday.
- 2) RCT inspect instrument for obvious damage and perform a battery check on the instrument.
- 3) RCT obtain a 60 second unit specific background measurement near column B-13 on second floor. Point 44-17 towards ceiling with thin metal plate covering the detector end, hold detector waist high and obtain background measurement. Ensure that tin side and back shields cover the detector during measurement.
- 4) In the highlighted grids on the attached sheet take 60-second contact readings as near as possible to the original survey location. Ensure that tin side and back shields are secured around the detector.
- 5) Document results on Sodium Iodide Data collection Sheets. Write "2nd survey" in the remarks section at the bottom of the data sheet.

Note if sample location is near ductwork or other items that may be the source of elevated readings in the remarks section.

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Survey Unit 776030

1) Introduction and Scope

A pre-demolition radiological survey (PDS) is performed prior to building demolition to define the radiological conditions of a facility. A PDS survey for survey unit 776030 has been completed in accordance with guidelines outlined in the "Radiological Pre-Demolition Survey Plan Building 776/777". Based on the results it is recommended that no further remediation is needed, and that the survey unit may be encapsulated in preparation for demolition. Isolation controls shall be put in place to prevent recontamination of the area. This report has been prepared in accordance with sections 3 and 8 of the "Radiological Pre-Demolition Survey Plan Building 776/777".

Survey unit 776030 is bounded by column line G to the south, column line 1 to the west, column line L to the north, and column lines 7 and 8 on its east side.

2) PDS Methods and Techniques

The PDS survey results determine the Average Surface Contamination Value (ASCV_u) and source term for the survey unit. These parameters are used to determine whether the building may be demolished within the limits outlined in the "Radiological Pre-Demolition Survey Plan Building 776/777".

To obtain a statistically powerful number of data points, a minimum of 30 survey points were selected per survey unit. A random start, systematic grid method was used to identify the survey point locations. Three types of surveys are performed at each survey point as follows:

- a) Painted surfaces are evaluated for potential contamination under coatings using sodium iodide (NaI) gamma detectors attached to a single channel analyzer windowed for the 59 keV gamma-ray (Am^{241}).
- b) Direct alpha surface contamination measurements are performed using a NE Electra survey instrument with attached DP-6 probe. This data may be compared to the NaI survey data to show the fraction of contamination that is directly on the surface versus imbedded in the material matrix.
- c) Removable surface alpha contamination surveys were performed by swiping the survey point with a 47mm filter paper then counting the filter paper on a SAC-4 alpha counter. This data may be used to gauge the effectiveness of encapsulation following the PDS.

To conservatively determine the final Average Surface Contamination Value (ASCV_u) for the survey unit, the source term associated with inaccessible areas of the survey unit (as described in section 4 of this report) is added to the source term calculated by the PDS survey.

3) ALARA Post Remediation Surveys

In addition to the PDS used to determine the Average Surface Contamination Value (ASCV_u) and source term for the survey unit, surveys were taken to determine the effectiveness of

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Survey Unit 776030

remediation efforts. Remediation is performed to demonstrate a reasonable best effort is made to maintain releases to the environment and doses to the workers ALARA. Remediation may include decontamination, or removal of parts of the structure such as block wall removal.

Data collected during follow-up surveys is illustrated in the "776030 NaI Data" section of this report. Measurements on any surface were collected at a distance of 30 centimeters or on contact with the surface. "On contact" measurements were only collected when it was suspected that shine from the surrounding area was contributing to an elevated reading. By collecting an "on contact" measurement with a collimated probe the influence of shine can be quantified and appropriate correction factors can be used to yield more accurate data.

a) Floors

The floors of survey unit 776030 consist of epoxy covered concrete. In-process measurements collected on the floor of 776030 show that the majority of the floor had elevated activity. 73 of the 103 floor grids were designated to be remediated. Two of the grids (30-20 and 30-21) are kathene damaged and could only be remediated with limited chipping.

Table 1:
Floor Remediation Results

	Pre-Remediation (In-process)	Post-Remediation (Follow-up)
Maximum (dpm/100cm ²)	43,962,451	2,886,591*
Minimum (dpm/100cm ²)	23,340	7,034
Average (dpm/100cm ²)	1,237,732	136,948
Average (μCi/m ²)	55.75	6.16
Source Term (μCi)	52,854.54	5,848.05

*Maximum post remediation measurement was collected in survey grid 30-44. Follow-up measurement in 30-44 is higher than in-process measurement in 30-44 due to shine from survey unit 776009 floor penetrating through a hole created by removing a process pipe stub that passed through the floor at the survey point location.

b) Walls

Survey measurements on the walls of survey unit 776030 were taken on an established 3 foot by 3 foot grid on each of the 61 wall sections within the unit equaling 747 m². One measurement was collected at the highest point within each 3 foot by 3 foot grid and recorded. A wall section average was derived from the average of all 3 foot by 3 foot grids per wall section.

One wall section (wall 12A) was found to have average contamination values above 100,000 dpm/100cm². Upon further investigation of this wall section the elevated measurements were found to have been caused by shine from contaminated columns at

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the ends of the section. No remediation was necessary on this wall section, and the source term due to contaminated columns is found in the "columns" section of this report.

Table 2
B776/777 Survey Unit 776030 - Wall Summary

Wall	Section	Structural	Initial Characterization			Follow-up Characterization		
			Type I	Type II	Type III	Type I	Type II	Type III
776030-1	A	Structural						
776030-1	B							
776030-2	A							
776030-3	A							
776030-4	A							
776030-5	A							
776030-5	B	Structural						
776030-7	A	Structural						
776030-7	B							
776030-7	B.2							
776030-8	A							
776030-8	B							
776030-9	A							
776030-9	B	Structural						
776030-11	A	Structural						
776030-11	B							
776030-12	A							
776030-13	A	Structural						
776030-14	A							
776030-15	A							
776030-15	B							
776030-16	A							
776030-17	A							
776030-17	B							
776030-18	A							
776030-20	A							
776030-22	A	Structural						
776030-23	A							
776030-24	A							
776030-25	A							
776030-26	A							
776030-27	A	Structural						
776030-28	A							
776030-29	A							
776030-30	A							
776030-31	A							
776030-32	A							
776030-33	A							
776030-34	A							
776030-35	A							

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Wall	Section	Structural	Initial Characterization			Follow-up Characterization		
			Type I	Type II	Type III	Type I	Type II	Type III
776030-35	A							
776030-37	B							
776030-37	B							
776030-38	A							
776030-38	B							
776030-38	C							
776030-39	A							
776030-40	A							
776030-41	A							
776030-42	A							
776030-43	A							
776030-44	A							
776030-45	A							
776030-46	A							
776030-47	A							
776030-48	A							
776030-49	A							
776030-50	A							
776030-51	A							
776030-52	A							
776030-53	A							
			Type I:	<100,000 dpm/100 cm ²				
			Type II:	>100,000 dpm/100cm ² to <1,000,000 dpm/100cm ²				
			Type III:	>1,000,000 dpm/100cm ²				

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Survey Unit 776030

Table 3
B776/777 Survey Unit 776030- Wall Source Term

Wall Designation	Wall Type	Area (m2)	Pre Average dpm/100cm2	Post Average dpm/100cm2	Total Activity (uCi)	Total Activity (uCi)
776030-1A	I	18	40,511	40,511	32.8	32.8
776030-1B	I	9	37,879	37,879	15.4	15.4
776030-2A	I	12	47,032	47,032	25.4	25.4
776030-3A	I	20	39,871	39,871	35.9	35.9
776030-4A	I	8	39,215	39,215	14.1	14.1
776030-5A	I	4	23,941	23,941	4.3	4.3
776030-5B	I	8	19,476	19,476	7	7
776030-7A	I	21	24,620	24,620	23.3	23.3
776030-7B	I	24	31,966	31,966	34.6	34.6
776030-7B.2	I	12	45,749	45,749	24.7	24.7
776030-8A	I	12	32,675	32,675	17.7	17.7
776030-8B	I	19	43,083	43,083	36.9	36.9
776030-9A	I	24	72,036	72,036	77.9	77.9
776030-9B	I	18	30,959	30,959	25.1	25.1
776030-11A	I	16	12,715	12,715	9.2	9.2
776030-11B	I	24	67,508	67,508	73	73
776030-12A	I	9	125,559	45,453	50.9	18.4
776030-13A	I	24	78,079	78,079	84.4	84.4
776030-14A	I	24	30,644	30,644	33.1	33.1
776030-15A	I	24	47,705	47,705	51.6	51.6
776030-15B	I	13	61,179	61,179	35.8	35.8
776030-16A	I	24	61,296	61,296	66.3	66.3
776030-17A	I	13	62,852	62,852	36.8	36.8
776030-17B	I	22	48,278	48,278	47.8	47.8
776030-18A	I	21	42,692	42,692	40.4	40.4
776030-20A	II	12	150,568	80,475	81.4	43.5
776030-22A	I	24	50,265	50,265	54.3	54.3
776030-23A	I	2	8,349	8,349	0.8	0.8
776030-24 A	I	4	24,083	24,083	4.3	4.3
776030-25A	I	4	68,643	68,643	12.4	12.4
776030-26A	I	2	31,469	31,469	2.8	2.8
776030-27A	I	12	36,820	36,820	19.9	19.9
776030-28A	I	6	51,163	51,163	13.8	13.8
776030-29A	I	4	28,257	28,257	5.1	5.1
776030-30A	I	24	35,054	35,054	37.9	37.9
776030-31A	I	8	44,828	44,828	16.2	16.2
776030-32A	I	12	24,917	24,917	13.5	13.5
776030-33A	I	8	35,231	35,231	12.7	12.7
776030-34A	I	16	32,438	32,438	23.4	23.4
776030-35A	I	24	47,275	47,275	51.1	51.1
776030-35A cent.	I	8	41,475	41,475	14.9	14.9
776030-37B	I	24	48,387	48,387	52.3	52.3
776030-37B cent.	I	8	29,728	29,728	10.7	10.7
776030-38A	I	6	11,257	11,257	3	3

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Wall Designation	Wall Type	Area (m2)	Pre Average dpm/100cm2	Post Average dpm/100cm2	Total Activity (uCi)	Total Activity (uCi)
776030-38B	I	20	32,515	32,515	29.3	29.3
776030-38C	I	8	17,603	17,603	6.3	6.3
776030-39A	I	6	23,321	23,321	6.3	6.3
776030-40A	I	6	28,030	28,030	7.6	7.6
776030-41A	I	7	17,565	17,565	5.5	5.5
776030-42A	I	3	56,626	56,626	7.7	7.7
776030-43A	I	6	31,941	31,941	8.6	8.6
776030-44A	I	7	19,181	19,181	6	6
776030-45A	I	6	28,270	28,270	7.6	7.6
776030-46A	I	6	48,725	48,725	13.2	13.2
776030-47A	I	6	40,024	40,024	10.8	10.8
776030-48A	I	6	31,323	31,323	8.5	8.5
776030-49A	I	6	38,091	38,091	10.3	10.3
776030-50A	I	6	32,290	32,290	8.7	8.7
776030-51A	I	6	40,411	40,411	10.9	10.9
776030-52A	I	6	31,710	31,710	8.6	8.6
776030-53A	I	5	52,902	52,902	11.9	11.9
Totals		747	44,663	39,148	1502.7	1,432.3

Table 4:
Wall Remediation Results

	Pre-Remediation (In-process)	Post-Remediation (follow-up)
Maximum (dpm/100cm ²)	150,568	80,475
Minimum (dpm/100cm ²)	8,349	8,349
Average (dpm/100cm ²)	41,611	39,148
Average (uCi/m ²)	1.87	1.7634441
Source Term (uCi)	1,502.7	1,470.2

c) Ceilings

The ceiling of survey unit 776030 contained three grids (30-120, 30-137 and 30-139) with elevated contamination levels as characterized during the in-process survey. Several grid areas (30-169 through 30-172, 30-193 through 30-196 and 30-198) had the ceiling surface removed entirely before the in-process survey was performed. An additional piece of ceiling surface (30-20) was removed after the in-process survey determined that a contaminated structural beam in the ceiling above the panel had to be removed. A summary and comparison of in-process and follow-up data is provided below in table 5.

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Table 5:
Ceiling Remediation Results

	Pre-Remediation (In-process)	Post-Remediation (follow-up)
Maximum (dpm/100cm ²)	352,863.16	125,021
Minimum (dpm/100cm ²)	3,434.46	3,434
Average (dpm/100cm ²)	16,630.04	12,999
Average (μCi/m ²)	0.75	0.59
Source Term (μCi)	710.15	555.09

d) Columns

Fixed contamination that was not identified during the in-process survey was measured on several columns in survey unit 776030. The contamination is characterized as a strip of contamination approximately one inch wide running several feet vertically on the center of the column. No remediation was performed on the columns due to the structural load on the columns. Data from the columns is summarized in table 6.

Table 6:
Column Contamination Levels

	Average Contamination Levels
Maximum (dpm/100cm ²)	6,850,252
Minimum (dpm/100cm ²)	6,907
Average (dpm/100cm ²)	1,898,672
Average (μCi/m ²)	85.53
Source Term (μCi)	846.70

4) Inaccessible Areas

a) Floors

Approximately one hundred seventy linear feet of contaminated cracks and expansion joints were identified in survey unit 776030 after floor shaving was completed. The average contamination of these cracks on the surface before remediation was 13,160,281 dpm/100cm². Only limited remediation was possible (to a depth of 2") to maintain the structural stability of the floor. Measurements collected after crack remediation indicate average contamination levels in the cracks to be 376,212 dpm/100cm². These levels indicate a decontamination factor (DF) of 34.98, or a source term reduction of 97%.

In addition to the inaccessible cracks and expansion joints on the floor of 776030, there exist one large area classified as a kathene damaged area. Kathene damaged areas are inaccessible to shaving due the corrosive effect that the kathene has had on the concrete and the resulting structural instability of the concrete. Minor remediation was carried out by chipping thin layers from the kathene damaged surface. The average contamination of

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the area before remediation was 614,263 dpm/100cm². Average contamination levels after remediation were reduced to 123,690 dpm/100cm². These levels indicate a decontamination factor (DF) of 4.97, or a source term reduction of 80%.

b) Walls

No inaccessible areas were identified on the walls of survey unit 776030.

c) Ceilings

No inaccessible areas were identified on the ceiling of survey unit 776030.

Table 7:
Inaccessible Area Source Term Summary

	Pre-Remediation (In-process) **	Post-Remediation
Seam/Crack Maximum (dpm/100cm ²)	26,204,915	737,256
Seam/Crack Minimum (dpm/100cm ²)	115,648	15,167
Seam/Crack Average (dpm/100cm ²)	13,160,282	376,212
Seam/Crack Average (μCi/m ²)	592.81	16.95
Seam/Crack Source Term (μCi)	2,570.01	73.47
DF	-	35
Source Term Reduction (%)	-	97.14
Kathene Area Maximum (dpm/100cm ²)	1,896,921.00	191,941.00
Kathene Area Minimum (dpm/100cm ²)	55,438.00	55,438.00
Kathene Area Average (dpm/100cm ²)	614,263.50	123,689.50
Kathene Area Average (μCi/m ²)	27.67	5.57
Kathene Area Source Term (μCi)	1,028.20	207.04
DF	-	4.97
Source Term Reduction (%)	-	79.86
Total Source Term (μCi)	3,598.21	177.00
Total DF	-	20.33
Total Source term Reduction (%)	-	95.1

** - Includes all activity from cracks, expansion joints, and seams not accounted for in the In-Process Survey

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5.) PDS Survey Results Summary

The values for the accessible areas and inaccessible areas were summed and divided by the total area for the survey unit to calculate the "Average Surface Contamination Value" (ASCV_u) and source term for the survey unit. The results are summarized in Table 8 below:

**Table 8:
PDS Final Results**

	Final Results
776030 Source Term Inaccessible Areas (μCi)	177.0
776030 Source Term Accessible Areas (μCi)	4,379.2
776030 Total Source Term (μCi)	4,556.2
Survey Unit Area (m ²)	3,008
ASCV _u (μCi/m ²)	1.51
ASCV _u (dpm/100cm ²)	33,627

Table 8 Notes:

- a) Inaccessible areas source term from Section 4 of this report.
- b) Accessible area source term is the sum of source terms attributed to floors, walls, ceiling and columns as determined by the final PDS survey.
- c) Total Source Term equals the sums of the source terms of Inaccessible Area + Accessible Area.

$$\text{Total Source Term} = (177.0 + 4,379.2) \mu\text{Ci} = 4,556.2 \mu\text{Ci}$$
- d) Average Surface Contamination for the Survey Unit (ASCV_u) in dpm/100cm² equals:

$$\text{ASCV}_u = (4,556.2 \mu\text{Ci})(22,200 \text{ dpm}/100\text{cm}^2 / 1 \mu\text{Ci}/\text{m}^2) / 3,008 \text{ m}^2 = 33,627 \text{ dpm}/100\text{cm}^2$$

776030
Follow-up Nal results

Location #	Column letter	Column Number	North	East	Surface	Gross Counts	pre remediation dpm/100cm2	post remediation dpm/100cm2
30-1	K	1	19	19	FLOOR	1200	25,197	25,197
30-2	K	2	12	5	FLOOR	1339	39,730	39,730
30-3	K	2	12	18	FLOOR	1341	47,362	32,557
30-4	K	3	19	7	FLOOR	2248	no data	89,720
30-5	K	4	12	7	FLOOR	750	160,423	10,923
30-6	K	4	13	13	FLOOR	1485	47,780	47,780
30-7	K	4	11	19	FLOOR	2123	no data	29,812
30-8	K	5	19	1	FLOOR	1997	no data	17,887
30-9	K	5	11	19	FLOOR	2213	2,340,152	248,825
30-10	K	6	12	9	FLOOR	1377	2,062,329	59,046
30-11	K	6	12	12	FLOOR	1594	2,419,579	242,438
30-12	J	6	11	2	FLOOR	929	246,116	10,923
30-13	K	7	16	11	FLOOR	1169	155,894	17,311
30-14	K	7	5	12	FLOOR	2212	120,535	38,235
30-15	K	6	2	1	FLOOR	6084	969,095	534,046
30-16	K	6	6	9	FLOOR	2544	882,421	190,243
30-17	K	6	1	9	FLOOR	3765	755,084	340,702
30-18	K	5	5	17	FLOOR	2419	no data	92,076
30-19	K	5	2	3	FLOOR	3061	54,054	265,699
30-20	K	4	9	19	FLOOR	6144	37,952	398,353
30-21	K	4	3	5	FLOOR	3474	2,266,379	157,672
30-22		INACCESSIBLE			FLOOR		6,786,004	inaccessible
30-23		INACCESSIBLE			FLOOR		2,159,872	inaccessible
30-24	K	2	3	17	FLOOR	1861	599,887	85,776
30-25	K	2	10	2	FLOOR	1511	2,046,506	19,126
30-26	K	1	10	11	FLOOR	1517	465,885	39,082
30-27	K	1	8	8	FLOOR	1617	899,568	95,301
30-28	K	1	1	8	FLOOR	1353	608,390	72,518
30-29	K	1	4	12	FLOOR	1486	1,184,272	57,054
30-30	J	2	12	2	FLOOR	1220	291,583	16,521
30-31	J	2	13	12	FLOOR	1392	931,880	16,734
30-32	J	3	17	17	FLOOR	1243	8,562,830	13,373
30-33	J	2	18	19	FLOOR	1322	984,150	13,373
30-34	J	4	13	4	FLOOR	2034	43,962,452	6,153
30-35	J	4	18	17	FLOOR	9252	3,918,828	73,432
30-36	J	5	19	7	FLOOR	4840	2,169,146	25,032
30-37	J	5	13	19	FLOOR	3236	1,794,436	75,003
30-38	J	6	19	4	FLOOR	1104	2,639,921	30,522
30-39	J	6	18	19	FLOOR	16488	no data	927,609
30-40	J	7	11	3	FLOOR	2042	no data	315,268
30-41	J	7	13	12	FLOOR	2218	141,263	67,716
30-42	J	7	9	12	FLOOR	2381	34,488	63,504
30-43	J	7	1	1	FLOOR	5130	55,913	649,274

776030
Follow-up Nal results

Location #	Column letter	Column Number	North	East	Surface	Gross Counts	pre remediation dpm/100cm2	post remediation dpm/100cm2
30-44	J	6	1	19	FLOOR	5022	38,893	2,886,591
30-45	J	6	1	1	FLOOR	2511	no data	57,295
30-46	J	5	4	20	FLOOR	3020	80,995	99,261
30-47	J	5	4	4	FLOOR	3296	1,992,656	140,826
30-48	J	4	13	10	FLOOR	1452	137,605	32,935
30-49	J	4	8	7	FLOOR	3527	3,599,322	112,055
30-50	J	3	5	19	FLOOR	3895	204,191	197,576
30-51	J	3	9	6	FLOOR	2355	no data	51,769
30-52	J	2	4	18	FLOOR	1235	1,003,493	20,584
30-53	J	2	9	0	FLOOR	1531	1,619,933	82,117
30-54	J	1	8	15	FLOOR	1307	29,588	34,488
30-55	J	1	5	8	FLOOR	1370	850,711	45,462
30-56	H	1	18	5	FLOOR	1430	911,327	55,918
30-57	H	1	18	13	FLOOR	1421	330,490	54,845
30-58	H	2	19	9	FLOOR	1341	295,589	38,893
30-59	H	2	11	13	FLOOR	1132	344,918	23,104
30-60	J	3	1	3	FLOOR	1654	110,930	28,433
30-61	J	1	1	19	FLOOR	1138	no data	29,737
30-62	J	4	2	2	FLOOR	1125	no data	32,295
30-63	H	4	19	19	FLOOR	2772	93,261	91,234
30-64	H	5	13	2	FLOOR	2418	141,263	239,538
30-65	H	5	19	19	FLOOR	2233	157,287	32,474
30-66	H	6	19	1	FLOOR	4033	no data	198,564
30-67	H	6	13	13	FLOOR	1004	454,489	38,985
30-68	H	6	1	19	FLOOR	4445	48,075	249,569
30-69	H	6	1	1	FLOOR	3324	66,286	142,520
30-70	H	5	1	19	FLOOR	2591	181,607	35,189
30-71	H	5	3	2	FLOOR	1253	1,237,733	42,862
30-72	H	4	8	13	FLOOR	1299	no data	20,216
30-73	H	4	10	3	FLOOR	1859	16,607	79,215
30-74	H	3	8	12	FLOOR	1186	7,468	15,521
30-75	H	3	8	3	FLOOR	1136	7,468	10,789
30-76	H	2	6	19	FLOOR	1013	4,044	7,034
30-77	H	2	4	8	FLOOR	1137	4,012	10,884
30-78	H	1	15	19	FLOOR	1618	13,378	58,772
30-79	H	1	7	7	FLOOR	1917	13,378	87,070
30-80	G	1	14	3	FLOOR	2021	13,378	96,913
30-81	G	1	18	19	FLOOR	1742	13,378	70,508
30-82	G	2	13	2	FLOOR	1336	13,378	29,717
30-83	G	2	18	11	FLOOR	1022	15,064	7,034
30-84	G	3	18	9	FLOOR	1069	15,064	7,034
30-85	G	3	12	18	FLOOR	1085	15,064	7,034
30-86	G	4	20	1	FLOOR	1465	15,064	45,689

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Follow-up Nal results

Location #	Column letter	Column Number	North	East	Surface	Gross Counts	pre remediation dpm/100cm2	post remediation dpm/100cm2
30-87	G	4	19	19	FLOOR	1204	15,064	17,225
30-88	G	5	19	8	FLOOR	1984	15,064	91,045
30-89	G	5	16	14	FLOOR	1034	352,863	7,034
30-90	F	5	19	1	FLOOR	1767	13,378	9,356
30-90A	F	5	19	1	FLOOR	1259	13,378	9,356
30-91	G	6	18	19	FLOOR	12566	13,378	363,068
30-92	G	6	10	18	FLOOR	2786	13,799	92,559
30-93	F	5	1	1	FLOOR	2158	16,607	25,317
30-94	G	5	5	13	FLOOR	1240	9,068	20,632
30-95	G	5	6	2	FLOOR	1122	16,607	9,464
30-96	G	4	2	13	FLOOR	885	8,781	7,034
30-97	G	4	2	3	FLOOR	885	16,607	7,034
30-98	G	3	3	12	FLOOR	1195	5,185	48,075
30-99	G	3	8	5	FLOOR	977	4,012	7,034
30-100	G	2	3	11	FLOOR	1037	5,611	7,034
30-101	G	2	4	8	FLOOR	1116	6,976	8,896
30-102	G	1	10	4	FLOOR	3223	125,021	133,917
30-103	G	1	7	2	FLOOR	2539	13,378	69,183
30-104	K	1	17	16	CEILING	77	13,378	16,607
30-105	K	2	6	1	CEILING	70	15,064	7,468
30-106	K	2	13	18	CEILING	75	15,064	7,468
30-107	K	3	15	8	CEILING	24	15,064	4,044
30-108	K	3	15	15	CEILING	38	15,064	4,012
30-109	K	4	16	5	CEILING	69	15,064	13,378
30-110	K	4	15	12	CEILING	55	15,064	13,378
30-111	K	5	17	4	CEILING	76	15,064	13,378
30-112	K	5	17	16	CEILING	69	15,064	13,378
30-113	K	6	15	4	CEILING	57	15,064	13,378
30-114	K	6	13	15	CEILING	63	13,378	15,064
30-115	K	7	13	8	CEILING	56	13,378	15,064
30-116	K	7	12	12	CEILING	48	24,703	15,064
30-117	K	7	9	11	CEILING	73	5,101	15,064
30-118	K	7	6	1	CEILING	81	3,980	15,064
30-119	K	6	8	18	CEILING	118	3,948	15,064
30-120	K	6	5	5	CEILING	701	3,434	removed
30-121	K	5	7	8	CEILING	73	16,607	13,378
30-122	K	5	7	2	CEILING	63	16,607	13,378
30-123	K	4	8	13	CEILING	63	16,607	13,378
30-124	K	4	2	1	CEILING	82	no data	13,378
30-125	K	3	7	18	CEILING	30	16,607	4,044
30-126	K	3	8	8	CEILING	41	16,607	4,012
30-127	K	2	5	17	CEILING	69	16,607	7,468
30-128	K	2	6	1	CEILING	92	16,607	13,799

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Follow-up Nal results

Location #	Column letter	Column Number	North	East	Surface	Gross Counts	pre remediation dpm/100cm2	post remediation dpm/100cm2
30-129	K	1	8	17	CEILING	82	9,454	16,607
30-130	K	1	5	6	CEILING	87	no data	11,708
30-131	K	1	5	6	CEILING	87	4,078	9,068
30-132	J	1	8	18	CEILING	89	4,078	16,607
30-133	J	2	19	7	CEILING	80	4,078	8,781
30-134	J	2	11	9	CEILING	76	4,078	16,607
30-134A	J	2	17	16	CEILING	49	8,992	5,185
30-135	J	3	16	5	CEILING	32	4,651	4,012
30-136	J	3	16	12	CEILING	51	9,575	5,611
30-137	J	4	16	3	CEILING	56	7,468	6,976
30-137A	J	4	17	6	CEILING	311	7,468	125,021
30-138	J	4	11	17	CEILING	109	no data	13,378
30-139	J	5	14	2	CEILING	216	no data	69,521
30-140	J	5	16	16	CEILING	117	no data	13,378
30-141	J	6	17	4	CEILING	125	no data	15,064
30-142	J	6	14	14	CEILING	145	7,468	15,064
30-143	J	7	12	5	CEILING	91	no data	15,064
30-144	J	7	17	12	CEILING	75	no data	15,064
30-145	J	7	2	12	CEILING	99	21,326	15,064
30-146	J	7	1	8	CEILING	117	11,290	15,064
30-147	J	6	2	18	CEILING	111	7,468	15,064
30-148	J	6	5	8	CEILING	111	7,468	15,064
30-149	J	5	3	5	CEILING	49	7,468	15,064
30-150	J	5	1	3	CEILING	112	12,963	13,378
30-151	J	4	3	14	CEILING	74	7,527	13,378
30-152	J	4	15	8	CEILING	113	10,872	24,703
30-152A	J	4	8	3	CEILING	49	7,468	5,101
30-153	J	3	8	17	CEILING	32	16,607	3,980
30-154	J	3	9	5	CEILING	45	16,607	3,948
30-155	J	2	8	17	CEILING	35	13,378	3,434
30-155A	J	2	5	8	CEILING	52	7,945	16,607
30-156	J	2	3	4	CEILING	76	13,378	16,607
30-157	J	1	15	18	CEILING	49	13,378	16,607
30-158	J	1	7	9	CEILING	80	7,468	8,781
30-159	H	1	13	5	CEILING	55	7,468	16,607
30-160	H	1	13	11	CEILING	57	no data	16,607
30-161	H	2	18	7	CEILING	62	no data	16,607
30-162	H	2	18	10	CEILING	67	no data	16,607
30-162A	H	2	17	17	CEILING	63	no data	9,612
30-163	H	3	18	5	CEILING	43	12,545	8,499
30-163A	H	3	12	3	CEILING	35	no data	4,078
30-164	H	3	17	16	CEILING	37	13,378	4,078
30-164A	H	3	12	18	CEILING	42	13,378	4,078

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Follow-up Nal results

Location #	Column letter	Column Number	North	East	Surface	Gross Counts	pre remediation dpm/100cm2	post remediation dpm/100cm2
30-165	H	4	18	4	CEILING	44	13,378	4,078
30-165A	H	4	12	3	CEILING	61	13,378	8,992
30-165B	H	4	8	8	CEILING	47	16,607	4,651
30-166	H	4	17	17	CEILING	90	7,468	9,575
30-167	H	5	19	6	CEILING	76	7,468	7,468
30-168	H	5	16	17	CEILING	73	12,545	7,468
30-169	CEILING REMOVED						REMOVED	REMOVED
30-170	CEILING REMOVED						REMOVED	REMOVED
30-171	CEILING REMOVED						REMOVED	REMOVED
30-172	CEILING REMOVED						REMOVED	REMOVED
30-173	H	5	6	18	CEILING	50	no data	7,468
30-174	H	5	4	3	CEILING	64	no data	7,468
30-175	H	4	5	15	CEILING	72	no data	7,468
30-176	H	4	9	9	CEILING	110	no data	2,325
30-177	H	3	5	18	CEILING	86	no data	290
30-178	H	3	9	3	CEILING	50	no data	7,468
30-179	H	2	4	13	CEILING	72	no data	7,468
30-180	H	2	8	4	CEILING	71	no data	7,468
30-181	H	1	5	18	CEILING	90	no data	7,468
30-182	H	1	4	4	CEILING	77	no data	7,468
30-183	G	1	16	4	CEILING	85	no data	7,468
30-184	G	1	15	15	CEILING	74	no data	7,468
30-185	G	2	15	5	CEILING	89	no data	6,607
30-186	G	2	15	15	CEILING	73	no data	16,607
30-187	G	3	17	3	CEILING	82	no data	7,468
30-188	G	3	14	17	CEILING	78	no data	7,468
30-189	G	4	12	5	CEILING	57	no data	7,468
30-190	G	4	17	16	CEILING	87	no data	7,468
30-191	G	5	18	6	CEILING	75	no data	7,468
30-192	G	5	14	18	CEILING	67	no data	7,468
30-193	CEILING REMOVED						REMOVED	REMOVED
30-194	CEILING REMOVED						REMOVED	REMOVED
30-195	CEILING REMOVED						REMOVED	REMOVED
30-196	CEILING REMOVED						REMOVED	REMOVED
30-197	G	5	3	17	CEILING	89	no data	12,545
30-198	CEILING REMOVED						REMOVED	REMOVED
30-199	G	4	4	16	CEILING	75	no data	7,468
30-200	G	4	9	4	CEILING	67	no data	7,468
30-201	G	3	6	18	CEILING	71	no data	16,607
30-202	G	3	9	3	CEILING	51	no data	7,468
30-203	G	2	5	15	CEILING	46	no data	16,607
30-204	G	2	9	3	CEILING	65	no data	7,468
30-205	G	1	5	17	CEILING	76	no data	7,468

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776030
Follow-up Nal results

Location #	Column letter	Column Number	North	East	Surface	Gross Counts	pre remediation dpm/100cm2	post remediation dpm/100cm2
30-206	G	1	5	8	CEILING	89	no data	12,545

Column #		ELEV. (m)		G-2		H-2	
Column #		ELEV. (m)		G-2		H-2	
0	3	6	9	12			
51,359	35,272	25,590					
NOTE: ON CONTACT							
39,210	44,955	56,021					
NOTE: ON CONTACT							
57,987	13,141	47,721					
NOTE: ON CONTACT							
55,778	26,973	56,021					
NOTE: ON CONTACT							
59,091	44,955	40,805					
NOTE: ON CONTACT							
9,388	3,370	61,554					
NOTE: ON CONTACT							
Row Average	45,469	28,111	47,952	#DIV/0!	Row Average	#DIV/0!	Row Average

Probe# 1	209090	Background 1	141
Efficiency 1	260	RCT 1	R.Burke
Contact Eff. 1	0.0624		

Probe# 2	Background 2	
Efficiency 2	RCT 2	
Contact Eff. 2		

Section Average 40.511	dpm/100cm ²	Count Time (s) 30
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[illegible]

Section Average
37.879

dpm/100cm²

Count Time (s)	30
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Probe# 2		Background 2	
Efficiency 2		RCT 2	
Contact Eff. 2			

Probe# 1	209050	Background 1	141
Efficiency 1	260	RCT 1	R. Burke
Contact Eff. 1	0.0824		

Unit	776030
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Wall	2
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Section	A
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Date	8/29/04
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Column #	1	2	3	4	5	6	7	8	9	10	11	12	Column #
J-2													J-4
ELEV. (ft)													
12													
9						29,542					50,093		
6						46,239					39,817		
3						69,359					56,515		
0	51,359	39,210	57,987	55,778	59,091	9,388							
	NOTE: ON CONTACT	NOTE: ON CONTACT	NOTE: ON CONTACT	NOTE: ON CONTACT	NOTE: ON CONTACT	NOTE: ON CONTACT							

Probe# 1	199757	Background 1	134
Efficiency 1	280	RCT 1	LANFORD
Contact Eff. 1	0.0790		

Probe# 2		Background 2	
Efficiency 2		RCT 2	
Contact Eff. 2			

Saction Average
47.032

dpm/100cm²

Count Time (s)	30
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[illegible]

Date	9/19/04
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Section	A
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Wall 4

Unit 776030

[illegible]

Unit	776030
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[illegible]

Probe# 1	199757	Background 1	134
Efficiency 1	280	RCT 1	LANFORD
Contact Eff. 1	0.0790		
Probe# 2		Background 2	
Efficiency 2		RCT 2	
Contact Eff. 2			

Section Average: 75.641

dpm/100cm²

Count Time (s) 30

Unit 776030

Wall 5

Section B

Date 8/29/04

Column #																Column #
R-2																1-2
ELEV. (ft)																
12																Row Average #DIV/0!
																Row Average #DIV/0!
9																Row Average #DIV/0!
6																Row Average 15,413
3																Row Average 35,322
																Row Average 17,580
0																Row Average 9,589

Probe# 1 199757 Background 1 134

Efficiency 1 280 RCT 1 LANFORD

Contact Eff. 1 0.0790

Probe# 2 Background 2

Efficiency 2 RCT 2

Contact Eff. 2

Section Average
19,476dpm/100cm²

Count Time (s) 30

Unit 776030

Wall 7

Section A

Date 8/27/04

Column #																Column #	Row Average #DIV/0!	Row Average #DIV/0!
13																13		
ELEV. (ft)																		
12																		
9	16,698	5,138	3,004		29,542	3,004												
6	3,004	3,853	3,004	3,004	56,515	34,680												
3	12,844	17,982			30,826	79,635												
0	29,953	87,555	4,608	20,737	34,561	36,865												
	NOTE: ON CONTACT	NOTE: ON CONTACT	NOTE: ON CONTACT	NOTE: ON CONTACT	NOTE: ON CONTACT	NOTE: ON CONTACT												

Probe# 1 199757 Background 1 130

Efficiency 1 280 RCT 1 D.Lanford

Contact Eff. 1 0.0790

Probe# 2 Background 2

Efficiency 2 RCT 2

Contact Eff. 2

Section Average
24,620dpm/100cm²

Count Time (s) 30

[illegible]

Probe# 1	212348	Background 1	150	Probe# 2		Background 2	
Efficiency 1	380	RCT 1	Jones	Efficiency 2		RCT 2	
Contact Eff. 1	0.0880	Contact Eff. 2		<div> <div>Count Time (s)</div> <div>30</div> </div>			

[illegible]

Date 8/27/04

Section A

Wall 8

Unit **776030**[illegible]

Unit	776030'
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[illegible]

Probe# 1	199757	Background 1	130
Efficiency 1	280	RCT 1	D. Lanford
Contact Eff. 1	0.0790		
Probe# 2		Background 2	
Efficiency 2		RCT 2	
Contact Eff. 2			

Section / Average: 43.083

dpm/100cm²

Count Time (s) 30

25

Unit 776030

Wall 9

Section A

Date 8/26/04

Column #															Column #
14															14
ELEV. (ft)															
12															
9	39,276	47,794	45,901	290,890	79,026	70,508	Row Average #DIV/0!								
6	42,116	45,901	35,491	67,669	6,152	43,062	Row Average #DIV/0!								
3	310,899	149,061	63,883	76,187	36,437	39,276	Row Average 95,566								
0	9,825	33,612	78,084	109,110	1,970	6,722	Row Average 40,065								
	NOTE: ON CONTACT	NOTE: ON CONTACT	NOTE: ON CONTACT	NOTE: ON CONTACT	NOTE: ON CONTACT	NOTE: ON CONTACT	Row Average 112,624								

Probe# 1 212348 Background 1 103

Efficiency 1 380 RCT 1 D.Lanford

Contact Eff. 1 0.0880

Probe# 2 199757 Background 2 89

Efficiency 2 280 RCT 2 Nugent

Contact Eff. 2 0.0790

Section Average 72,235

dpm/100cm²

Count Time (s) 30

Unit 776030

Wall 9

Section B

Date 8/26/04

Column #																Column #
1-4																1-4
ELEV. (ft)																
12																
9	81,865				23,187	7,098	20,348									
6	27,919	106,472	63,883	10,884	20,348	54,419										
3	1,970				16,562	12,777										
0	27,407	35,681	10,859		1,970	33,612										
	NOTE: ON CONTACT	NOTE: ON CONTACT	NOTE: ON CONTACT		NOTE: ON CONTACT	NOTE: ON CONTACT										

Row Average
#DIV/0!

Row Average
#DIV/0!

Row Average
#DIV/0!

Row Average
33,125

Row Average
47,321

Row Average
10,437

Row Average
21,906

Probe# 1	212348	Background 1	103
Efficiency 1	380	RCT 1	O.Lanfard
Contact Eff. 1	0.0880		

Probe# 2		Background 2	
Efficiency 2		RCT 2	
Contact Eff. 2			

Section Average
30,959

dpm/100cm²

Count Time (s) 30

37

Unit 776030

Wall 11

Section A

Date 8/26/04

Column #																Column #	Row Average #DIV/0!	Row Average #DIV/0!
1-8																8-1		
ELEV. (ft)																		
12																		
9	22,886	4,449	4,449														Row Average 14,894	
6	4,449	4,449	4,449														Row Average 10,284	
3		4,449	4,449														Row Average 10,595	
0		4,449	4,449	25,855	13,445	22,753											Row Average 14,190	
		NOTE: ON CONTACT	NOTE: ON CONTACT	NOTE: ON CONTACT	NOTE: ON CONTACT	NOTE: ON CONTACT												

Probe# 1 199764 Background 1 176

Efficiency 1 220 RCT 1 D.Lanford

Contact Eff. 1 0.0880

Probe# 2 Background 2

Efficiency 2 RCT 2

Contact Eff. 2

Section Average
12,715

dpm/100cm²

Count Time (s) 30

Date	8/25/04
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[illegible]

Probe# 1	199764	Background 1	176
Efficiency 1	220	RCT 1	D.MN
Contact Eff. 1	0.0880		

Probe# 2		Background 2	
Efficiency 2		RCT 2	D.Lanford
Contact Eff. 2			

Section Average
67.508

dpm/100cm²

Count Time (s)	30
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Unit	776030
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Wall	12
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Section	A
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Date	8/26/04
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[illegible]

Probe# 1	199764	Background 1	176
Efficiency 1	220	RCT 1	D.Lanford
Contact Eff. 1	0.0880		

Probe# 2		Background 2	
Efficiency 2		RCT 2	
Contact Eff. 2			

Section Average
125.539

dpm/100cm²

Count Time (s)	30
----------------	----

40

Unit 776030

Wall 13

Section A

Date 8/26/04

Column #															Column #	Row Average #DIV/01
47															47	Row Average #DIV/01
ELEV. (ft)																Row Average #DIV/01
12																Row Average #DIV/01
9	184,724	63,754	34,329	40,868	62,120	76,832										Row Average 77,105
6	102,988	65,389	53,946	17,982	4,904	81,736										Row Average 54,491
3	344,927	75,197	34,329	24,521	4,449	531,286										Row Average 169,118
0	12,411	5,171	13,445	17,582	16,547	4,449										Row Average 11,601
	NOTE ON CONTACT	NOTE ON CONTACT	NOTE ON CONTACT	NOTE ON CONTACT	NOTE ON CONTACT	NOTE ON CONTACT										

Probe# 1	199764	Background 1	176
Efficiency 1	220	RCT 1	D. Lanford
Contact Eff. 1	0.0880		

Probe# 2		Background 2	
Efficiency 2		RCT 2	
Contact Eff. 2			

Section Average 78,079

dpm/100cm²

Count Time (s) 30

17

Unit 776030

Wall 14

Section A

Date 8/26/04

Column #																Column #	Row Average #DIV/0!	Row Average #DIV/0!
11-7																6-7		
ELEV. (ft)																	Row Average #DIV/0!	
12																	Row Average #DIV/0!	
9	35,964	19,617	8,174	4,449	4,449	4,449											Row Average 12,850	
6	58,850	8,174	4,449	4,449	4,449												Row Average 17,210	
3	272,999	6,539	4,904	11,443	6,539												Row Average 86,913	
0	4,449 <small>NOTE: ON CONTACT</small>	4,449 <small>NOTE: ON CONTACT</small>	4,449 <small>NOTE: ON CONTACT</small>	4,449 <small>NOTE: ON CONTACT</small>	4,449 <small>NOTE: ON CONTACT</small>												Row Average 5,604	

Probe# 1 199764 Background 1 176

Efficiency 1 220 RCT 1 D.Lanford

Contact Eff. 1 0.0880

Probe# 2 Background 2

Efficiency 2 RCT 2

Contact Eff. 2

Section Average
38,244

dpm/100cm²

Count Time (s) 30

Unit 776030

Wall 15

Section A

Date 11/21/04

Column #															Column #	Row Average #DIV/0!	Row Average #DIV/0!
G1															M		
ELEV. (ft)																Row Average #DIV/0!	
12																Row Average #DIV/0!	
	34,291	38,473	30,946	41,819	56,037	67,746										Row Average 44,885	
9	56,873	46,000	42,655	46,837	79,455	51,019										Row Average 53,807	
6	66,910	55,201	59,382	57,710	56,873	36,800										Row Average 55,479	
3	4,449	40,982	51,019	61,892	50,182	11,376										Row Average 36,650	
0	NOTE ON CONTACT	NOTE ON CONTACT	NOTE ON CONTACT	NOTE ON CONTACT	NOTE ON CONTACT	NOTE ON CONTACT											

Probe# 1 212340 Background 1 142

Efficiency 1 430 RCT 1 D.Lanförd

Contact Eff. 1 0.0870

Probe# 2 Background 2

Efficiency 2 RCT 2

Contact Eff. 2

Section Average
47,705dpm/100cm²

Count Time (s) 30

43

Unit 776030

Wall 15

Section B

Date 11/21/04

Column #																	Column #
11																	11
ELEV. (ft)																	
12																	
9	62,728	71,092	48,510														
6	67,746	84,474	88,655														
3	52,691	77,783	76,110														
0	4,449	82,801	66,910												11,376		
	NOTE ON CONTACT	NOTE ON CONTACT	NOTE ON CONTACT	NOTE ON CONTACT	NOTE ON CONTACT	NOTE ON CONTACT	NOTE ON CONTACT	NOTE ON CONTACT	NOTE ON CONTACT	NOTE ON CONTACT	NOTE ON CONTACT	NOTE ON CONTACT	NOTE ON CONTACT	NOTE ON CONTACT	NOTE ON CONTACT	NOTE ON CONTACT	

Row Average
#DIV/0!
Row Average
#DIV/0!

Row Average
#DIV/0!

Row Average
60,776

Row Average
80,292

Row Average
68,861

Row Average
41,384

Probe# 1 212340 Background 1 142

Efficiency 1 430 RCT 1 D. Lanford

Contact Eff. 1 0.0870

Probe# 2 Background 2

Efficiency 2 RCT 2

Contact Eff. 2

Section Average
61,179

dpm/100cm²

Count Time (s) 30

[illegible]

Probe# 1	212340	Background 1	142
Efficiency 1	430	RCT 1	D.Lanford
Count Eff. 1	0.0870	Contact Eff. 2	
Probe# 2		Background 2	
Efficiency 2		RCT 2	
Count Eff. 2		Contact Eff. 2	

Section Average
25.852
25.852
dpm/100cm²

Count Time (s) 30

Unit 776030

Wall 17

Section B

Date 11/21/04

												Row Average #DIV/0!
												Row Average #DIV/0!
												Row Average #DIV/0!
Column # 142						Column # 62						
ELEV. (ft) 12												
9	40,982	33,455	33,455	10,873	43,491	45,164						Row Average 34,570
6	64,401	56,873	35,128	20,909	59,382	51,019						Row Average 47,952
3	85,310	68,583	68,583	39,309		75,273						Row Average 67,412
0	4,449 NOTE: ON CONTACT	67,746 NOTE: ON CONTACT	72,764 NOTE: ON CONTACT	73,601 NOTE: ON CONTACT		11,376 NOTE: ON CONTACT						Row Average 45,987

Probe# 1 212340 Background 1 142

Efficiency 1 430 RCT 1 D.Lanford

Contact Eff. 1 0.0870

Probe# 2 Background 2

Efficiency 2 RCT 2

Contact Eff. 2

Section Average
46,270dpm/100cm²

Count Time (s) 30

[illegible]

56

Unit 776030

Wall 20

Section A

Date 12/29/04

Column #	91,506	134,044	54,904														Row Average #DIV/0!
11																	Row Average 93,484
ELEV. (ft)																	Row Average #DIV/0!
12																	Row Average 65,720
9	77,708	48,166	71,286														Row Average 70,858
6	72,570	68,717	71,286														Row Average 91,837
3	102,112	86,699	86,699														Row Average 93,484
0	91,506	134,044	54,904														Row Average 93,484
	NOTE: ON CONTACT	NOTE: ON CONTACT	NOTE: ON CONTACT														

Probe# 1	199764	Background 1	151
Efficiency 1	280	RCT 1	BOGNAR
Contact Eff. 1	0.0920		

Probe# 2		Background 2	
Efficiency 2		RCT 2	
Contact Eff. 2			

Section Average
80,475

dpm/100cm²

Count Time (s) 30

Unit 776030

Wall 22

Section A

Date 8/22/04

Column #																Column #	Row Average #DIV/0!	Row Average #DIV/0!	Row Average #DIV/0!
ELEV. (ft)																			
12																			
9	40,805	46,338	38,039	11,757	26,973	56,021													
6	29,739	20,057	53,254	28,356	14,524	28,356													
3	85,069	58,787	53,254	69,853	97,518	108,584													
0	55,778	56,882	74,554	51,359	30,374	70,136													
	NOTE: ON CONTACT	NOTE: ON CONTACT	NOTE: ON CONTACT	NOTE: ON CONTACT	NOTE: ON CONTACT	NOTE: ON CONTACT													

Probe# 1	209090	Background 1	141
Efficiency 1	260	RCT 1	R.Burke
Contact Eff. 1	0.0824		

Probe# 2		Background 2	
Efficiency 2		RCT 2	
Contact Eff. 2			

Section Average
50,265dpm/100cm²

Count Time (s) 30

Unit 776030

Wall 23

Section A

Date 8/29/04

Column #															Column #	Row Average #DIV/0!
K-1															K-1	Row Average #DIV/0!
ELEV. (ft)																Row Average #DIV/0!
12																Row Average #DIV/0!
9																Row Average #DIV/0!
6																Row Average #DIV/0!
3	10,275															Row Average 10,275
0	6,422															Row Average 6,422

Probe# 1	199757	Background 1	134
Efficiency 1	280	RCT 1	NUGENT
Contact Eff. 1	0.0790		

Probe# 2		Background 2	
Efficiency 2		RCT 2	
Contact Eff. 2			

Section Average
8,349dpm/100cm²

Count Time (s) 30

[illegible]

Unit 776030

Wall 25

Section A

Date 9/16/04

Column #																		Column #
R-1																		R-2
ELEV. (ft)																		
12																		
9																		
6																		
3																		
0																		

Row Average
#DIV/0!
Row Average
#DIV/0!

Row Average
#DIV/0!

Row Average
69,419

Row Average
66,073

Row Average
83,637

Row Average
55,444

Probe# 1	212340	Background 1	138
Efficiency 1	430	RCT 1	NUGENT
Contact Eff. 1	0.0870		

Probe# 2		Background 2	
Efficiency 2		RCT 2	
Contact Eff. 2			

Section Average
68,643

dpm/100cm²

Count Time (s) 30

Unit 776030

Wall 26

Section NORTH FACING

Date 8/29/04

Column #																Column #
K-2																K-1
ELEV. (ft)																
12																
9																
6																
3																
0																

Row Average

#DIV/0!

Row Average

#DIV/0!

Row Average

#DIV/0!

Row Average

#DIV/0!

Row Average

#DIV/0!

Row Average

32,111

Row Average

30,826

Probe# 1	199757	Background 1	134
Efficiency 1	280	RCT 1	NUGENT
Contact Eff. 1	0.0790		

Probe# 2		Background 2	
Efficiency 2		RCT 2	
Contact Eff. 2			

Section Average
31,469dpm/100cm²

Count Time (s) 30

Unit 776030[illegible]

Section Average 36.820				
Prob# 1	199757	Background 1	134	
Efficiency 1	280	RCT 1		
Contact Eff. 1	0.0790			
Prob# 2		Background 2		
Efficiency 2		RCT 2		
Contact Eff. 2				
<div>Count Time (s)</div> <div>30</div>				

Unit	776030
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Wall	29
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Section	A
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Date	8/29/04
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[illegible]

Probe# 1	199757	Background 1	134
Efficiency 1	280	RCT 1	NUGENT
Contact Eff. 1	0.0790		

Probe# 2		Background 2	
Efficiency 2		RCT 2	
Contact Eff. 2			

Section Average
28-257

dpm/100cm²

Count Time (s)	30
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Unit 776030

Wall 30

Section A

Date 8/29/04

Column #															Column #	Row Average #DIV/01 Row Average #DIV/01
R-1															R-1	Row Average 30,184
ELEV. (ft)																
12																Row Average 31,683
	24,404	34,680	47,524	16,698	41,102	25,689										Row Average 31,254
9	16,698	25,689	37,248	35,964	50,093	21,835										Row Average 39,817
6	19,266	24,404	34,680	73,212	35,964	51,377										Row Average 37,463
3	25,689	55,230	30,826	26,973	51,377	34,680										
0	NOTE: ON CONTACT	NOTE: ON CONTACT	NOTE: ON CONTACT	NOTE: ON CONTACT	NOTE: ON CONTACT	NOTE: ON CONTACT										

Probe# 1	199757	Background 1	134
Efficiency 1	280	RCT 1	NUGENT
Contact Eff. 1	0.0790		

Probe# 2		Background 2	
Efficiency 2		RCT 2	
Contact Eff. 2			

Section Average
35,954dpm/100cm²

Count Time (s) 30

Unit 776030

Wall 31
WEST SIDE OF STAIRWELL

Section A

Date 8/27/04

Column #																Column #
1-2																K-2
ELEV. (ft)																
12																
9																
6																
3																
0																

Row Average
#DIV/0!
Row Average
#DIV/0!Row Average
#DIV/0!Row Average
15,413Row Average
32,111Row Average
77,066Row Average
54,722

Probe# 1 199757 Background 1 130

Efficiency 1 280 RCT 1 D.Lanförd

Contact Eff. 1 0.0790

Probe# 2 Background 2

Efficiency 2 RCT 2

Contact Eff. 2

Section Average
44,628dpm/100cm²

Count Time (s) 30

Date 8/22/04

Section A

Wall 32

Unit 776030

[illegible]

Count Time (s)	30
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Unit 776030

Wall 34

Section A

Date 8/27/04

Column #														Column #
R-2														R-2
ELEV. (ft)														
12														
9														
6														
3														
0														

Row Average

#DIV/0!

Row Average

#DIV/0!

Row Average

#DIV/0!

Row Average

31,790

Row Average

31,790

Row Average

35,643

Row Average

30,529

Probe# 1	199757	Background 1	130
Efficiency 1	280	RCT 1	D.Lanford
Contact Eff. 1	0.0790		

Probe# 2		Background 2	
Efficiency 2		RCT 2	
Contact Eff. 2			

Section Average
32,433dpm/100cm²

Count Time (s) 30

69

Unit 776030

Wall 35

Section A

Date 9/19/04

Column #																		Column #
ELEV. (ft)																		
12																		
9	38,284	42,925	30,163	31,323	41,765	52,206												
6	67,287	53,366	53,366	67,287	53,366	37,124												
3	66,127	30,163	34,804	34,804	40,605	47,565												
0	60,327	56,846	51,046	48,725	51,046	44,085												

Row Average
#DIV/0!
Row Average
#DIV/0!

Row Average
#DIV/0!

Row Average
39,444

Row Average
55,299

Row Average
42,345

Row Average
52,012

Section Average
47,273

dpm/100cm²

Count Time (s) 30

Probe# 1	212343	Background 1	116
Efficiency 1	310	RCT 1	BARTOLOMY
Contact Eff. 1	0.0800		

Probe# 2		Background 2	
Efficiency 2		RCT 2	
Contact Eff. 2			

Unit **776030** Wall **35** Section **A-CENTER** Date **9/19/04**

Column #																Column #
ELEV. (ft)																
12																
9																
6																
3																
0																

Row Average
#DIV/0!
Row Average
#DIV/0!
Row Average
#DIV/0!
Row Average
31,323
Row Average
32,484
Row Average
44,665
Row Average
57,426

Probe# 1 **212343** Background 1 **116**

Efficiency 1 **310** RCT 1 **BARTOLOMY**

Contact Eff. 1 **0.0800**

Probe# 2 Background 2

Efficiency 2 RCT 2

Contact Eff. 2

Section Average
41,475

dpm/100cm²

Count Time (s) **30**

Unit	776030	Wall	37	Section	B	Date	9/19/04
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[illegible]

Probe# 1	212343	Background 1	116
Efficiency 1	310	RCT 1	BARTOLOMY
Contact Eff. 1	0.0800		

Probe# 2		Background 2	
Efficiency 2		RCT 2	
Contact Eff. 2			

Section Average	48.397
dpm/100cm ²	30
Count Time (s)	30

Unit 776030

Wall 37

Section B-CENTER

Date 9/19/04

Column #																Column #	Row Average #DIV/01	Row Average #DIV/01
ELEV. (ft)																		
12																		
9																		
6																		
3																		
0																		

Probe# 1	212343	Background 1	116
Efficiency 1	310	RCT 1	BARTOLOMY
Contact Eff. 1	0.0800		

Probe# 2		Background 2	
Efficiency 2		RCT 2	
Contact Eff. 2			

Section Average
29,728dpm/100cm²

Count Time (s) 30

0.0870	Contact Eff. 1
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Unit	776030	Wall	38	Section	B	Date	9/20/04
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Row Average	#DIV/0!	Row Average	#DIV/0!	Column #				
56,455	Row Average	55,619	54,782	36,382	64,819	70,673		
36,048	Row Average	32,200	24,673	59,801	19,655	43,910		
29,253	Row Average	9,618	48,928	51,437		2,408	33,873	
8,303	Row Average	2,408	15,473	18,818		2,408	2,408	
	Row Average							

Probe# 1	212340	Background 1	197
Efficiency 1	430	RCT 1	T.CREASON
Count Eff. 1	0.0870	Contact Eff. 2	
Probe# 2		Background 2	
Efficiency 2		RCT 2	
Count Eff. 2		Contact Eff. 2	

Section Average 32.515

dpm/100cm²

Count Time (s) 30

Unit	Wall	Section	Date
776030	38	C	9/20/04

Column #	Row Average	#DIV/01	#DIV/01	Column #
13				42

ELEV. (ft)	0	3	6	9	12
35,546	23,837	21,327	11,291	2,408	
17,146					
17,146					
12,127					
Row Average	29,691	19,237	14,218	7,268	

Probe# 1	212340	Background 1	197
Efficiency 1	430	RCT 1	T.CREASON
Contact Eff. 1	0.0870		

Probe# 2	Background 2
Efficiency 2	RCT 2
Contact Eff. 2	

Section Average	17,603
dpm/100cm ²	30
Count Time (s)	

69

Unit 776030

Wall 39

Section A

Date 8/27/04

Column #															Column #	Row Average #DIV/0!	Row Average #DIV/0!
13															13		
ELEV. (ft)																Row Average #DIV/0!	
12																Row Average #DIV/0!	
9																Row Average #DIV/0!	
6																Row Average 23,762	
3																Row Average 34,680	
0																Row Average 11,520	

Probe# 1	199757	Background 1	130
Efficiency 1	280	RCT 1	D.Lanford
Contact Eff. 1	0.0790		

Probe# 2		Background 2	
Efficiency 2		RCT 2	
Contact Eff. 2			

Section Average
23,521

dpm/100cm²

Count Time (s) 30

Unit 776030

Wall 40

Section A

Date 8/22/04

Column #																Column #
ELEV. (ft)																
12																Row Average #DIV/0!
9																Row Average #DIV/0!
6	12,303	23,661														Row Average 17,982
3	19,875	26,500														Row Average 23,187
0	38,266 <small>NOTE: ON CONTACT</small>	47,574 <small>NOTE: ON CONTACT</small>														Row Average 42,920

Probe# 1	212348	Background 1	150
Efficiency 1	380	RCT 1	Jones
Contact Eff. 1	0.0880		

Probe# 2		Background 2	
Efficiency 2		RCT 2	
Contact Eff. 2			

Section Average
28,030dpm/100cm²

Count Time (s) 30

Date 8/22/04

Section A

47
Wall

Unit 776030[illegible]

Unit 776030

Wall 42

Section A

Date 8/22/04

Column #																Column #
ELEV. (ft)																
12																
9																
6	46,375															
3	51,107															
0	72,395															

NOTE: ON CONTACT

 Row Average
 #DIV/0!
 Row Average
 #DIV/0!

 Row Average
 #DIV/0!

 Row Average
 #DIV/0!

 Row Average
 46,375

 Row Average
 51,107

 Row Average
 72,395

Probe# 1	212348	Background 1	150
Efficiency 1	380	RCT 1	Jones
Contact Eff. 1	0.0880		

Probe# 2		Background 2	
Efficiency 2		RCT 2	
Contact Eff. 2			

 Section Average
 56,626
dpm/100cm²

Count Time (s) 30

Date 8/22/04

Section A

Wall	43
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Unit 776030

[illegible]

Unit 776030

Wall 45

Section A

Date 9/19/04

Column #																Column #
ELEV. (ft)																
12																Row Average #DIV/0!
9																Row Average #DIV/0!
6	2,563	23,203														Row Average 12,883
3	31,323	45,245														Row Average 38,284
0	44,085	23,203														Row Average 33,644

Probe# 1 212343

Background 1 116

Efficiency 1 310

RCT 1 BARTOLOMY

Contact Eff. 1 0.0800

Probe# 2

Background 2

Efficiency 2

RCT 2

Contact Eff. 2

Section Average
28,270dpm/100cm²

Count Time (s) 30

[illegible]

77

Unit 776030

Wall 47

Section A

Date 9/19/04

Column #																Column #
ELEV. (ft)																
12																
9																
6	25,523	20,882														
3	69,608	38,284														
0	46,405	39,444														

Row Average
#DIV/0!
Row Average
#DIV/0!
Row Average
#DIV/0!
Row Average
23,203
Row Average
53,946
Row Average
42,925

Probe# 1 212343 Background 1 116

Efficiency 1 310 RCT 1 BARTOLOMY

Contact Eff. 1 0.0800

Probe# 2 Background 2

Efficiency 2 RCT 2

Contact Eff. 2

Section Average
48,024

dpm/100cm²

Count Time (s) 30

81

Unit 776030

Wall 48

Section A

Date 9/19/04

Column #																Column #
ELEV. (ft)																
12																Row Average #DIV/0!
																Row Average #DIV/0!
9																Row Average #DIV/0!
																Row Average #DIV/0!
6	11,601	31,323														Row Average 21,462
																Row Average #DIV/0!
3	47,565	40,605														Row Average 44,085
																Row Average #DIV/0!
0	19,722	37,124														Row Average 28,423

Probe# 1 212343

Background 1 116

Efficiency 1 310

RCT 1 BARTOLOMY

Contact Eff. 1 0.0800

Probe# 2

Background 2

Efficiency 2

RCT 2

Contact Eff. 2

Section Average 31,323

dpm/100cm²

Count Time (s) 30

Unit 776030

Wall 49

Section A

Date 9/19/04

Column #																		Column #
ELEV. (ft)																		
12																		
9																		
6																		
3																		
0																		

Row Average
#DIV/0!
Row Average
#DIV/0!

Row Average
#DIV/0!

Row Average
#DIV/0!

Row Average
30,163

Row Average
35,384

Row Average
48,725

Probe# 1 212343 Background 1 116

Efficiency 1 310 RCT 1 BARTOLOMY

Contact Eff. 1 0.0800

Probe# 2 Background 2

Efficiency 2 RCT 2

Contact Eff. 2

Section Average
38,891

dpm/100cm²

Count Time (s) 30

8

Unit 776030

Wall 50

Section A

Date 9/19/04

Column #																Column #
ELEV. (ft)																
12																
9																
6	15,082	33,644														
3	37,124	40,605														
0	42,925	24,363														

Row Average
#DIV/0!
Row Average
#DIV/0!

Row Average
#DIV/0!

Row Average
#DIV/0!

Row Average
24,363

Row Average
38,864

Row Average
33,644

Probe# 1	212343	Background 1	116
Efficiency 1	310	RCT 1	BARTOLOMY
Contact Eff. 1	0.0800		

Probe# 2		Background 2	
Efficiency 2		RCT 2	
Contact Eff. 2			

Section Average
32,290

dpm/100cm²

Count Time (s) 30

Unit 776030

Wall 51

Section A

Date 9/19/04

Column #																Column #
ELEV. (ft)																
12																Row Average #DIV/0!
9																Row Average #DIV/0!
6	29,003	33,644														Row Average #DIV/0!
3	64,967	46,405														Row Average 31,323
0	22,042	46,405														Row Average 55,686
																Row Average 34,224

Probe# 1 212343 Background 1 116

Efficiency 1 310 RCT 1 BARTOLOMY

Contact Eff. 1 0.0800

Probe# 2 Background 2

Efficiency 2 RCT 2

Contact Eff. 2

Section Average
40,411dpm/100cm²

Count Time (s) 30

Unit 776030[illegible]

Probe# 1	212343	Background 1	116	<div> <div>Section Average</div> <div>317710</div> </div> <div> <div>dpm/100cm²</div> </div> <div> <div>Count Time (s)</div> <div>30</div> </div>
Efficiency 1	310	RCT 1	BARTOLOMY	
Probe# 2		Background 2		
Efficiency 2		RCT 2		
Contact Eff. 1	0.0800	Contact Eff. 2		

Date 9/19/04

Section A

Wall 53

Unit	776030
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[illegible]

Date	9/19/04
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Column #	12	12	9	6	3	0	Column #	12
ELEV. (ft)								
12								
9								
6								
3								
0								

Probe# 1	212343	Background 1	116
Efficiency 1	310	RCT 1	BARTOLÓMY
Contact Eff. 1	0.0800		

Probe# 2		Background 2	
Efficiency 2		RCT 2	
Contact Eff. 2			

Section Average
52.902

dpm/100cm²

Count Time (s)	30
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[illegible]

98

Unit 776030

Wall 53

Section A

Date 9/19/04

Column #																		Column #
12																		12
ELEV. (ft)																		
12																		
9																		
6																		
3																		
0																		

Row Average
#DIV/0!
Row Average
#DIV/0!

Row Average
#DIV/0!

Row Average
#DIV/0!

Row Average
63,227

Row Average
42,345

Row Average
53,366

Probe# 1	212343	Background 1	116
Efficiency 1	310	RCT 1	BARTOLOMY
Contact Eff. 1	0.0800		

Probe# 2		Background 2	
Efficiency 2		RCT 2	
Contact Eff. 2			

Section Average
52,902

dpm/100cm²

Count Time (s) 30

Sample Location Number	Nal Activity Measurements				
	Measurement Used	Comment	Surface	Coating	(dpm/100 cm ²)
1	Sodium Iodide	N/A	wall	Thin/No Paint	195,010
2	Sodium Iodide	N/A	Floor	Thin/No Paint	45,676
3	Sodium Iodide	N/A	Floor	Thin/No Paint	35,515
4	Sodium Iodide	N/A	Floor	Thin/No Paint	5,118
5	Sodium Iodide	N/A	wall	Thin/No Paint	5,118
6	Sodium Iodide	N/A	wall	Thin/No Paint	9,525
7	Sodium Iodide	N/A	Floor	Thin/No Paint	5,118
8	Sodium Iodide	N/A	Floor	Thin/No Paint	6,620
9	Sodium Iodide	N/A	Floor	Thin/No Paint	9,988
10	Sodium Iodide	N/A	wall	Thin/No Paint	7,907
11	Sodium Iodide	N/A	wall	Thin/No Paint	49,213
12	Sodium Iodide	N/A	wall	Thin/No Paint	52,519
13	Sodium Iodide	N/A	wall	Thin/No Paint	4,586
14	Sodium Iodide	N/A	Floor	Thin/No Paint	43,701
15	Sodium Iodide	N/A	Floor	Thin/No Paint	23,202
16	Sodium Iodide	N/A	Floor	Thin/No Paint	4,586
17	Sodium Iodide	N/A	wall	Thin/No Paint	103,212
18	Sodium Iodide	N/A	wall	Thin/No Paint	148,888
19	Sodium Iodide	N/A	wall	Thin/No Paint	58,265
20	Sodium Iodide	N/A	wall	Thin/No Paint	10,717
21	Sodium Iodide	N/A	wall	Thin/No Paint	4,586
22	Sodium Iodide	N/A	wall	Thin/No Paint	86,353
23	Sodium Iodide	N/A	wall	Thin/No Paint	22,266
24	Sodium Iodide	N/A	Ceiling	Thin/No Paint	4,586
25	Sodium Iodide	N/A	Ceiling	Thin/No Paint	4,586
26	Sodium Iodide	N/A	Ceiling	Thin/No Paint	4,586
27	Sodium Iodide	N/A	Ceiling	Thin/No Paint	4,586
28	Sodium Iodide	N/A	Ceiling	Thin/No Paint	4,586
29	Sodium Iodide	N/A	wall	Thin/No Paint	4,399
30	Sodium Iodide	N/A	Ceiling	Thin/No Paint	4,586
				MIN	4,399
				MAX	195,010
				AVERAGE	32,320
				SD	46,436

Data and Sodium Iodide Instrument Information

Survey Area:	2nd Floor	Survey Unit:	776030	Survey Date(s):	12/11/04
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Instrument Specifications

Instrument #	1	2
Meter Model:	Ludlum 2350-1	Ludlum 2350-1
Meter Serial #:	203449	201199
Detector Model:	Bicron G-5	Ludlum 44-17
Detector #:	B940T	199764
Detector Size (cm ²):	125	17.8
Calibration Due Date:	6/8/05	6/9/05
Count Time (min)	5	5
Contact Efficiency	6.05%	8.80%

Ratio Used

Pu to Am - 241	8.1
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Comments

In cases where the critical level is greater than the calculated dpm/100cm², the critical level will be used for statistical analysis.

Count Times for backgrounds and samples are equal.

Attenuation Factors: Based on observation of Walls and Ceilings. Epoxy on Floor determined by chip sampling.

Background (Gross)

Instrument #	1	2
Gamma (Ceilings)	N/A	359
Gamma (Floors)	10423	N/A
Gamma (Block Walls)	N/A	748
Gamma (Solid Walls)	N/A	N/A

Background (cpm)

Instrument #	1	2
Gamma (Ceilings)	N/A	71.8
Gamma (Floors)	2084.6	N/A
Gamma (Block Walls)	N/A	149.6
Gamma (Metal Walls)	N/A	N/A

Efficiencies (cpm/dpm)

Instrument #	1	2
Thin/No Paint	0.060	0.087
Epoxy	0.049	0.071
Other	0.057	0.084

Coatings

	Thickness (inches)
Thin/No Paint	0.007
Epoxy	0.250
Other	0.06

Total Activity Estimates Using Sodium Iodide Instrume

Survey Area:	2nd Floor	Survey Unit:	776030	12/11/04
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Sample Location #	RCT ID #	Instrument #	Gross Counts	Total Alpha (dpm/cm ²)
1	1	1	19472	195,010
2	2	2	1,187	45,676
3	1	1	12,071	35,515
4	1	1	9740	5,118
5	2	1	9618	5,118
6	1	1	10865	9,525
7	1	1	8,629	5,118
8	2	2	736	6,620
9	2	2	844	9,988
10	2	2	824	7,907
11	2	2	1221	49,213
12	1	1	12860	52,519
13	2	2	324	4,586
14	1	2	1,089	43,701
15	2	2	971	23,202
16	1	2	307	4,586
17	2	2	1740	103,212
18	2	2	2179	148,888
19	2	2	1308	58,265
20	1	2	851	10,717
21	2	2	362	4,586
22	1	1	14430	86,353
23	2	2	962	22,266
24	1	2	269	4,586
25	2	2	293	4,586
26	2	2	322	4,586
27	1	2	359	4,586
28	1	2	307	4,586
29	NA	NA	NA	NA
30	1	2	316	4,586

Estimate Data and Sodium Iodide Instrument Information

Survey Area:	2nd floor	Survey Unit:	776030	Survey Date(s):	12/19/04
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Instrument Specifications

Instrument #	1	2
Meter Model:	Ludlum 2350-1	N/A
Meter Serial #:	201199	N/A
Detector Model:	Ludlum 44-17	N/A
Detector #:	15156	N/A
Detector Size (cm ²):	17.8	N/A
Calibration Due Date:	6/9/05	N/A
Count Time (min)	5	N/A
Contact Efficiency	7.90%	N/A

Ratio Used

Pu to Am - 241	8.1
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Comments

In cases where the critical level is greater than the calculated dpm/100cm², the critical level will be used for statistical analysis.

Count Times for backgrounds and samples are equal.

Attenuation Factors: Based on observation of Walls and Ceilings. Contamination assumed to be under thin layer of fixative on all surfaces

Background (Gross)

Instrument #	1	2
Gamma (Ceilings)	266	N/A
Gamma (Floors)	N/A	N/A
Gamma (Walls)	266	N/A

Background (cpm)

Instrument #	1	2
Gamma (Ceilings)	53.2	N/A
Gamma (Floors)	N/A	N/A
Gamma (Walls)	53.2	N/A

Efficiencies (cpm/dpm)

Instrument #	1	2
Thin/No Paint	0.078	N/A
Epoxy	0.075	N/A
Other	N/A	N/A

Coatings

	Thickness (Inches)
Thin/No Paint	0.008
Epoxy	0.060
Other	N/A

Total Activity Using Sodium Iodide Instruments (Cont'd)

Survey Area:	2nd floor	Survey Unit:	776030	12/19/04
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[illegible]

Removable Activity

Survey Area:		2nd Floor	Survey Unit:		776030
Dates Counted:	12/11/04				
A priori MDA:	16				
Efficiency (c/d)	0.333				
Smear Location Number	Smear Results				
	RCT ID #	Serial Number	Gross (cpm)	Bkg.	(dpm/100 cm ²)
1	1	1	1	0.1	3
2	2	2	1	0.2	2
3	1	4	1	0.6	1
4	2	1	0	0.1	0
5	1	3	0	0.2	-1
6	2	3	0	0.2	-1
7	1	1	0	0.1	0
8	2	2	0	0.2	-1
9	1	4	0	0.6	-2
10	2	2	0	0.2	-1
11	1	1	0	0.1	0
12	2	4	0	0.6	-2
13	1	1	1	0.1	3
14	2	4	2	0.6	4
15	1	1	0	0.1	0
16	2	1	0	0.1	0
17	1	3	0	0.2	-1
18	2	2	1	0.2	2
19	1	2	0	0.2	-1
20	2	3	0	0.2	-1
21	1	2	0	0.2	-1
22	2	4	1	0.6	1
23	1	3	1	0.2	2
24	2	3	0	0.2	-1
25	1	4	1	0.6	1
26	2	1	0	0.1	0
27	1	4	1	0.6	1
28	2	2	0	0.2	-1
29	1	3	1	0.1	3
30	2	2	0	0.2	-1
				MIN	-1.8
				MAX	4.2
				MEAN	0.4
				SD	1.5

Total Surface Activity

Survey Area:		2nd Floor	Survey Unit:		776030		
Meter Model:		NE Electra w/ DP6 Probe				Dates Counted:	8/9, 12/18/04
Instrument #:		4172	2405	1246	n/a	A priori MDA:	94
Cal. Due Date:		1/16/05	3/20/05	1/26/05	n/a	Avg. Local Bkgd	4.6
Efficiency (c/d):		0.221	0.227	0.220	n/a	Avg. Efficiency	0.220
Sample Location #	RCT ID #	Inst. #	Instrument (cpm)	Local Bkgd (cpm)	(dpm/100 cm ²)		
1	1	4172	60	5.0	250.0		
2	2	2405	10	4.0	27.3		
3	1	4172	17	5.0	54.5		
4	2	2405	31	6.0	113.6		
5	1	4172	63	1.0	281.8		
6	2	2405	228	9.0	995.5		
7	1	4172	85	3.0	372.7		
8	2	2405	10	7.0	13.6		
9	1	4172	14	3.0	50.0		
10	2	2405	0	0.0	0.0		
11	1	4172	9	4.0	22.7		
12	2	2405	22	1.0	95.5		
13	1	4172	6	3.0	13.6		
14	2	2405	1	3.0	-9.1		
15	1	4172	16	7.0	40.9		
16	2	4172	9	5.0	18.2		
17	1	2405	1518	3.0	6886.4		
18	2	4172	12	0.0	54.5		
19	1	2405	8	5.0	13.6		
20	2	4172	13	4.0	40.9		
21	1	2405	6	3.0	13.6		
22	2	4172	55	5.0	227.3		
23	1	2405	7	9.0	-9.1		
24	2	4172	5	4.0	4.5		
25	1	2405	26	2.0	109.1		
26	2	4172	9	3.0	27.3		
27	1	2405	10	4.0	29.1		
28	2	4172	18	17.0	4.5		
29	1	1246	2	2.0	0.0		
30	2	4172	8	10.0	-9.1		
					MIN	-9.1	
					MAX	6886.4	
					MEAN	324.5	
					SD	1254.5	

RADIOLOGICAL CLOSEOUT SURVEY FOR THE 776 CLUSTER

Survey Area: 2nd Floor

Survey Unit: 776030

Classification: NA

Building: 776

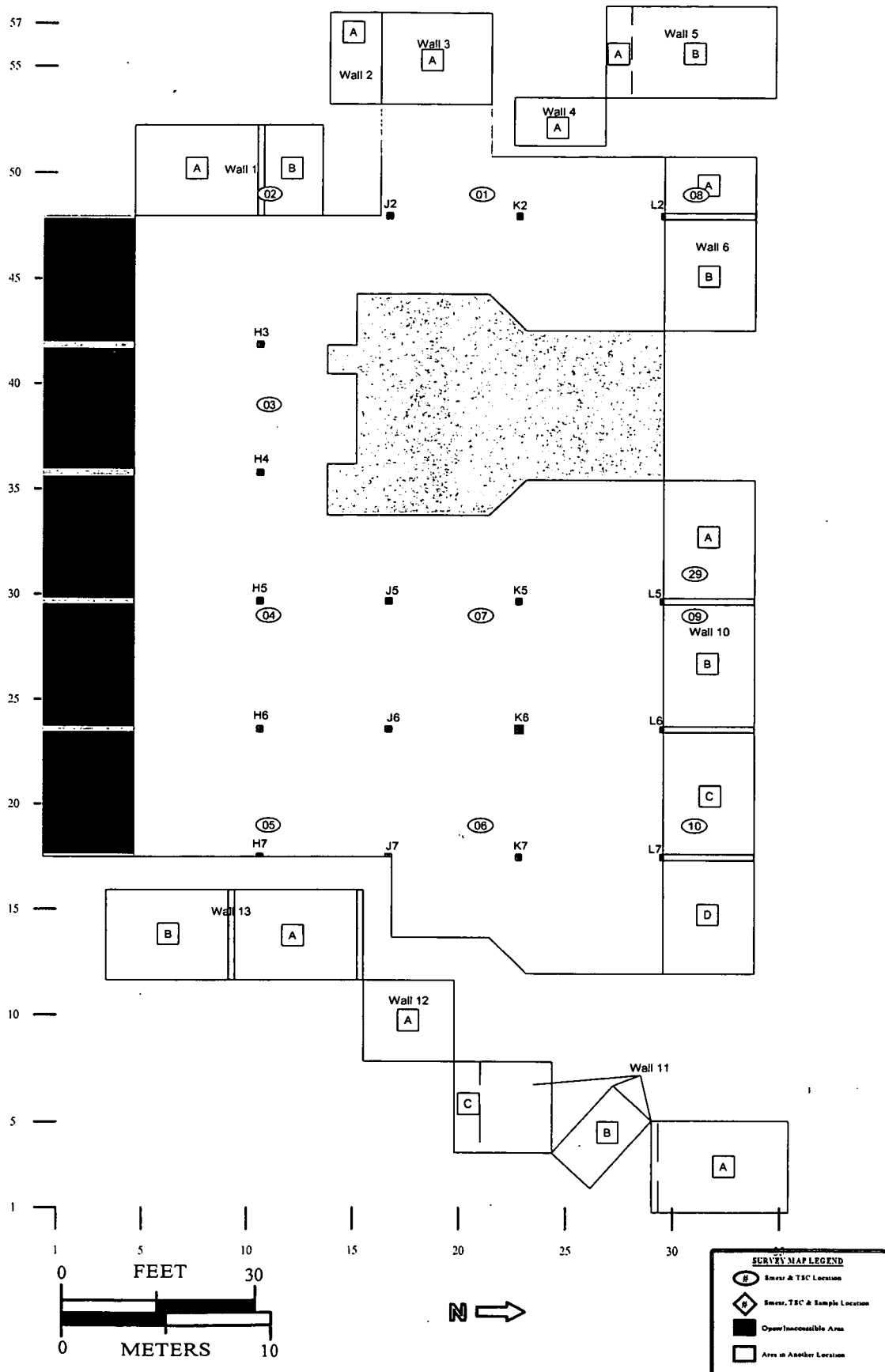
Survey Unit Description: Rooms 201, 206, 207, 213, 220, 227

Total Floor Area: 948 sq. m

Total Area: 3008 sq. m

Random Start Grid Size: 10 x 10 sq. m

SURVEY UNIT 776030 - MAP 1 OF 4



RADIOLOGICAL CLOSEOUT SURVEY FOR THE 776 CLUSTER

Survey Area: 2nd Floor

Survey Unit: 776030

Classification: NA

Building: 707

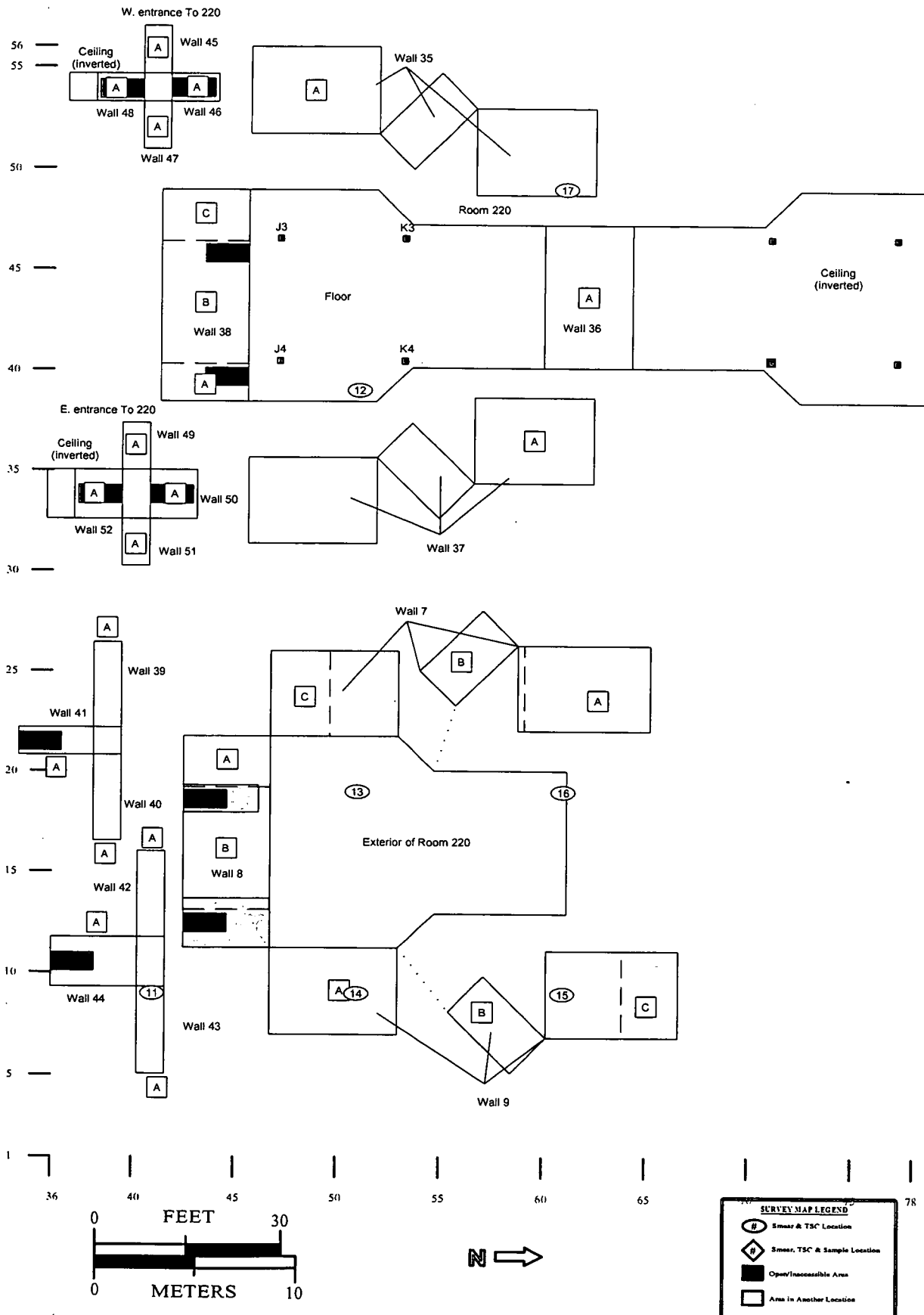
Survey Unit Description: Rooms 201, 206, 207, 213, 220, 227

Total Floor Area: 948 sq. m

Total Area: 3008 sq. m

Random Start Grid Size: 10 x 10 sq. m

SURVEY UNIT 776030 - MAP 2 OF 4



RADIOLOGICAL CLOSEOUT SURVEY FOR THE 776 CLUSTER

Survey Area: 2nd Floor

Survey Unit: 776030

Classification: NA

Building: 776

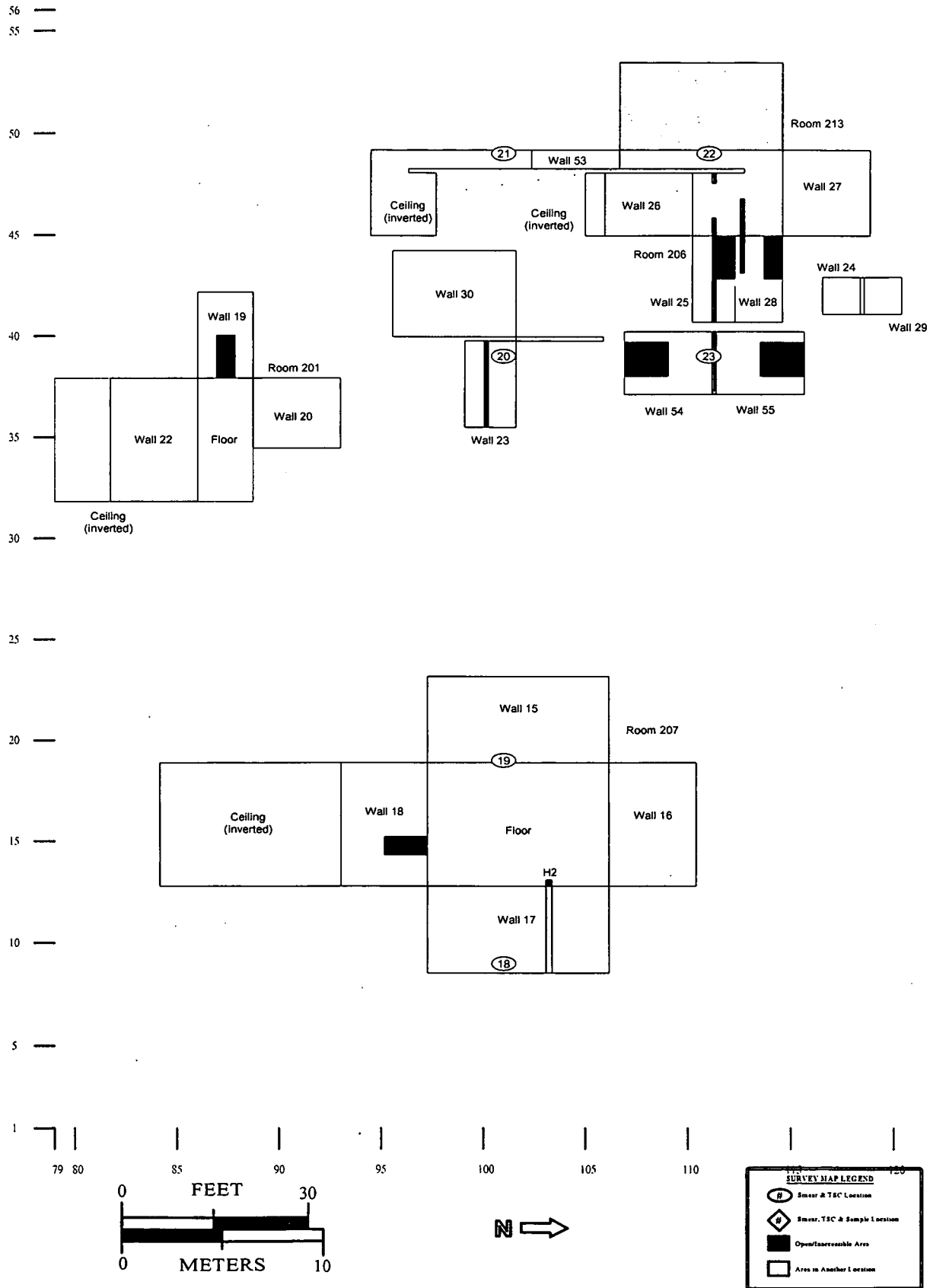
Survey Unit Description: Rooms 201, 206, 207, 213, 220, 227

Total Floor Area: 948 sq. m

Total Area: 3008 sq. m

Random Start Grid Size: 10 x 10 sq. m

SURVEY UNIT 776030 - MAP 3 OF 4



RADIOLOGICAL CLOSEOUT SURVEY FOR THE 776 CLUSTER

Survey Area: 2nd Floor

Survey Unit: 776030

Classification: NA

Building: 776

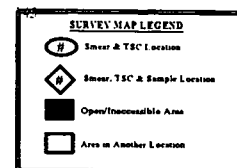
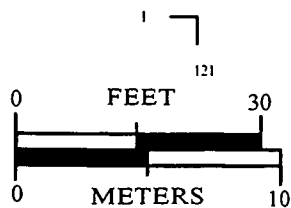
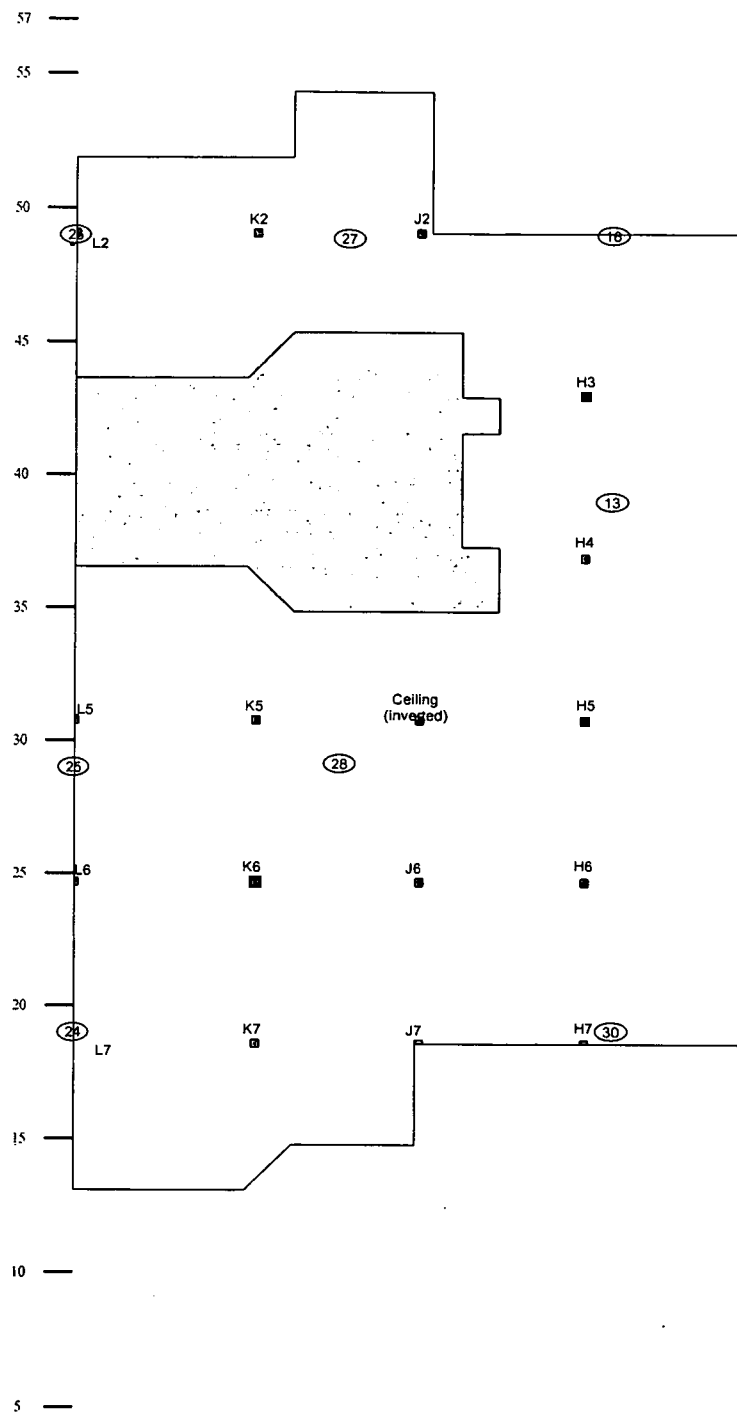
Survey Unit Description: Rooms 201, 206, 207, 213, 227

Total Floor Area: 948 sq. m

Total Area: 3008 sq. m

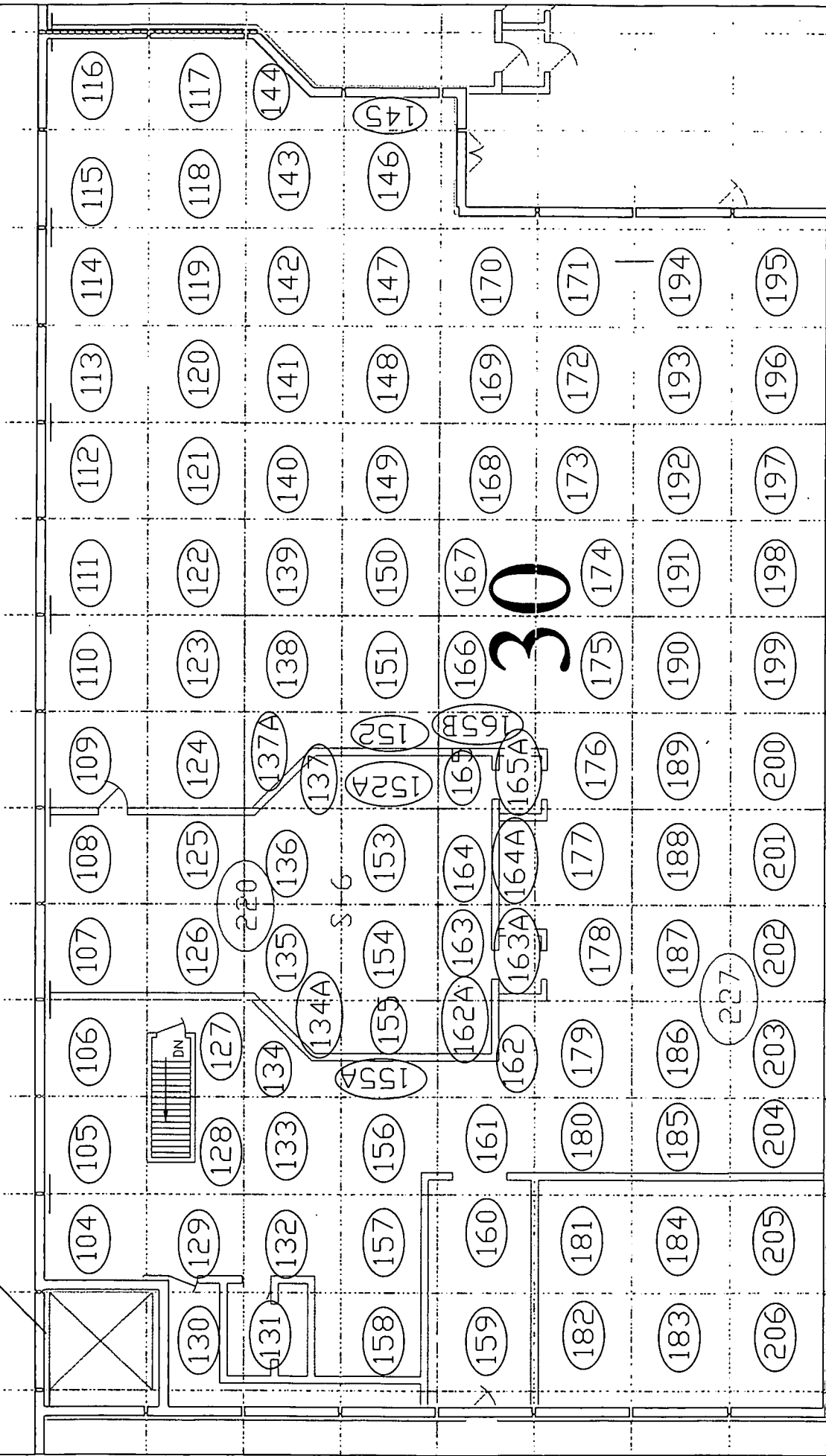
Random Start Grid Size: 10 x 10 sq. m

SURVEY UNIT 776030 - MAP 4 OF 4:



CEILING

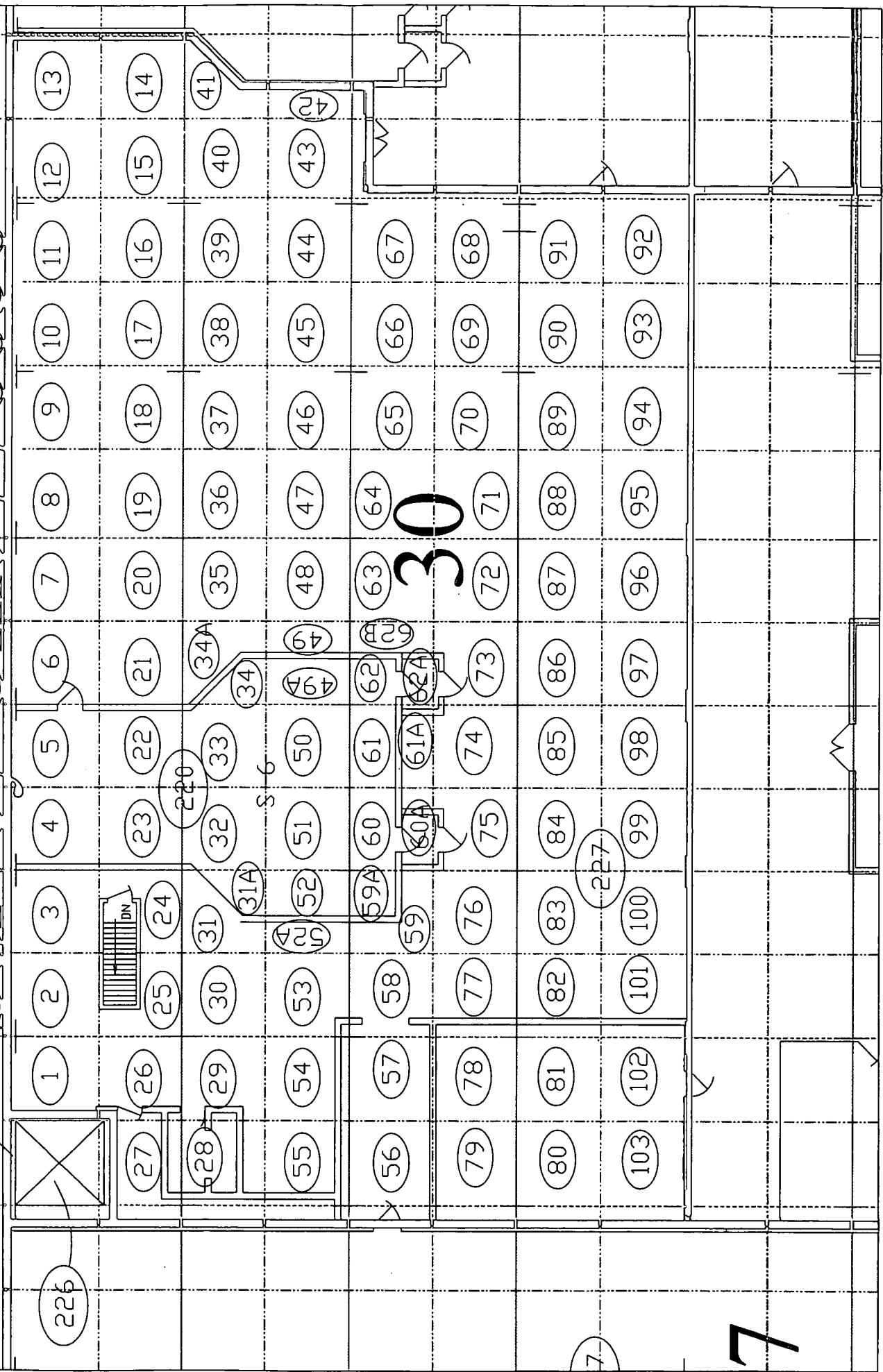
6 Survey Unit 776030



FLOOR

6

Survey Unit 776030



7

110V380

results in dpm/100cm²

Approx. 170 ft of cracks/Expansion joint remediated

initial readings

115,648

to

26,204,915

post remediation readings

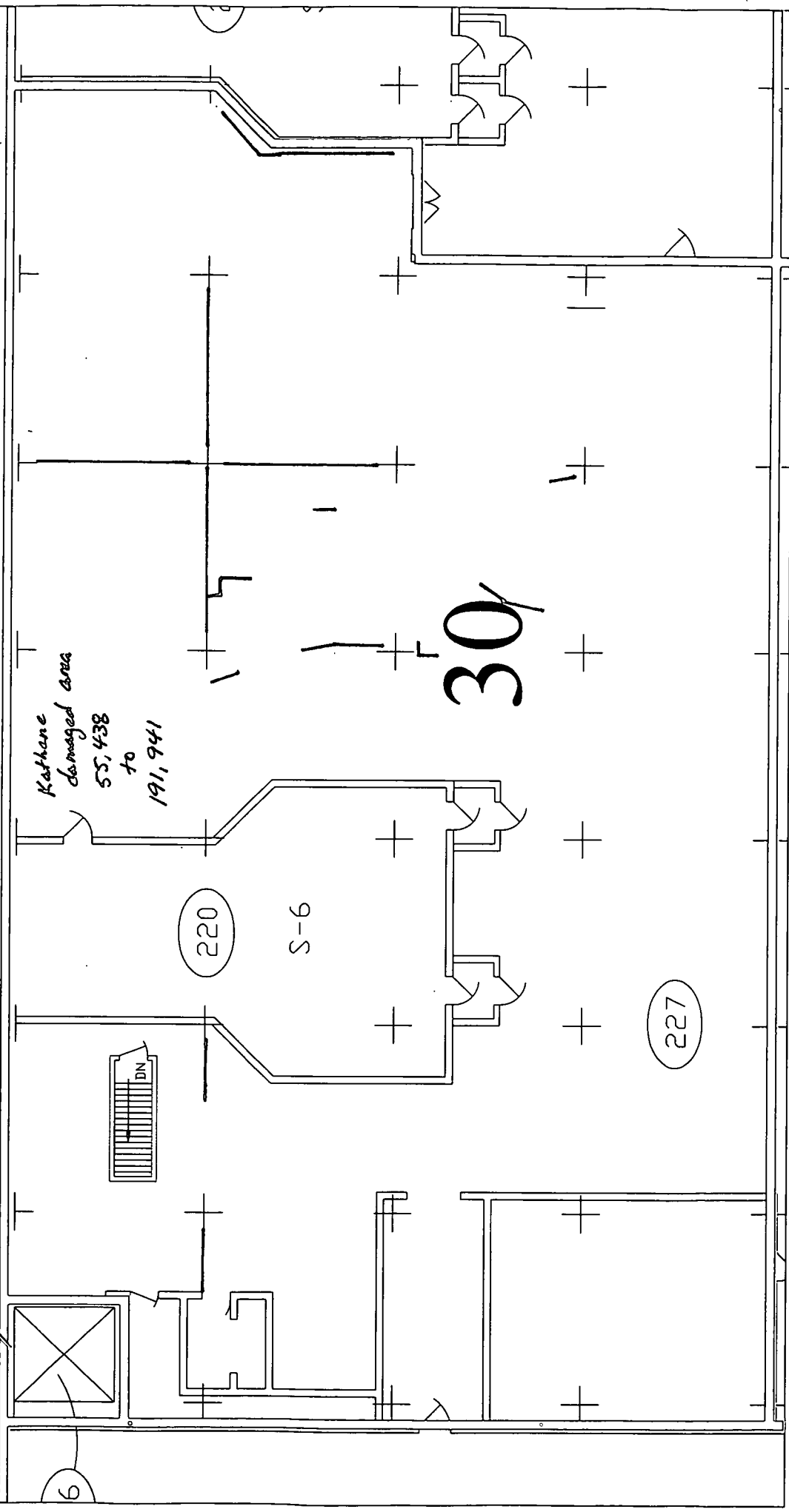
15,167

to

737,256

Approx Avg. 13,160,281

Approx Avg. 376,212



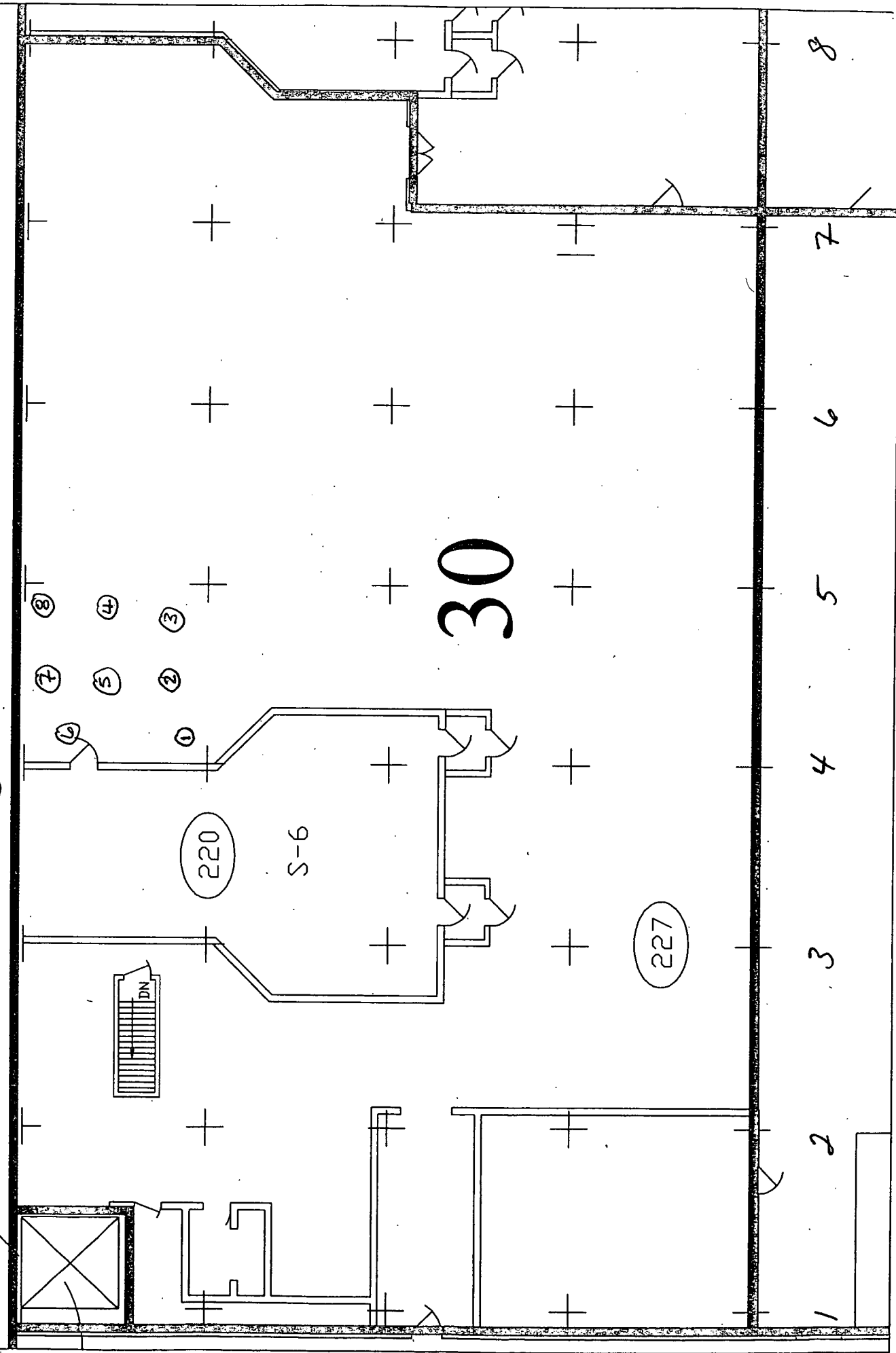
prior to relocation
results 1 ppm/1000cm³

ignition damaged area

6

- ① 1,896,921
- ② 1,079,472
- ③ 55,438

- ④ 1,270,360
- ⑤ 191,941
- ⑥ 123,428
- ⑦ 132,842
- ⑧ 163,699



1 2 3 4 5 6 7 8